

# MANUFACTURERS' RECORD

A WEEKLY SOUTHERN INDUSTRIAL  
RAILROAD AND FINANCIAL NEWSPAPER.

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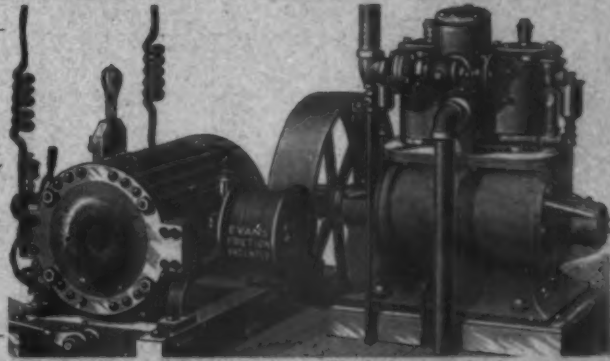
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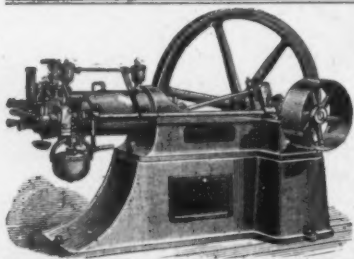
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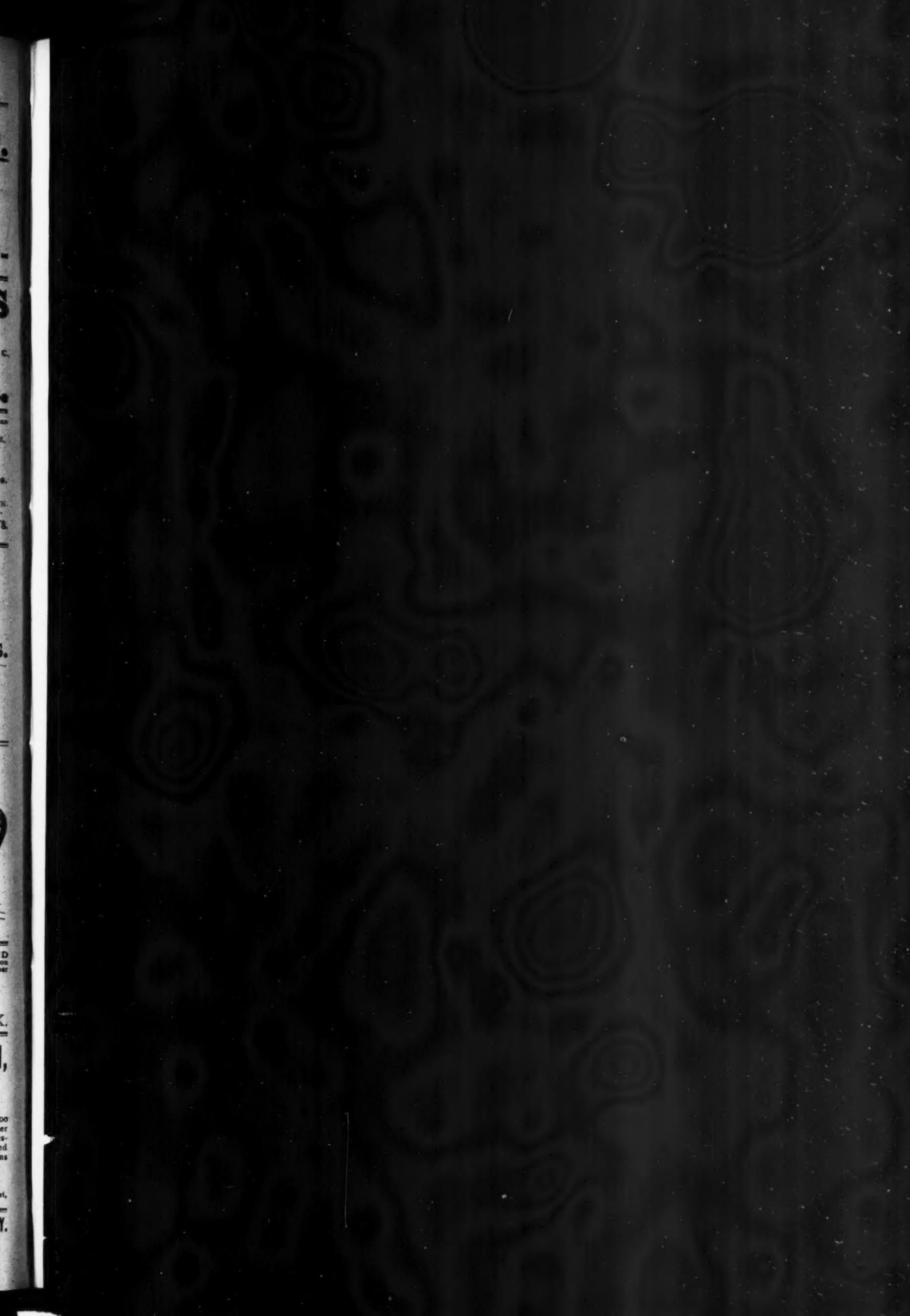
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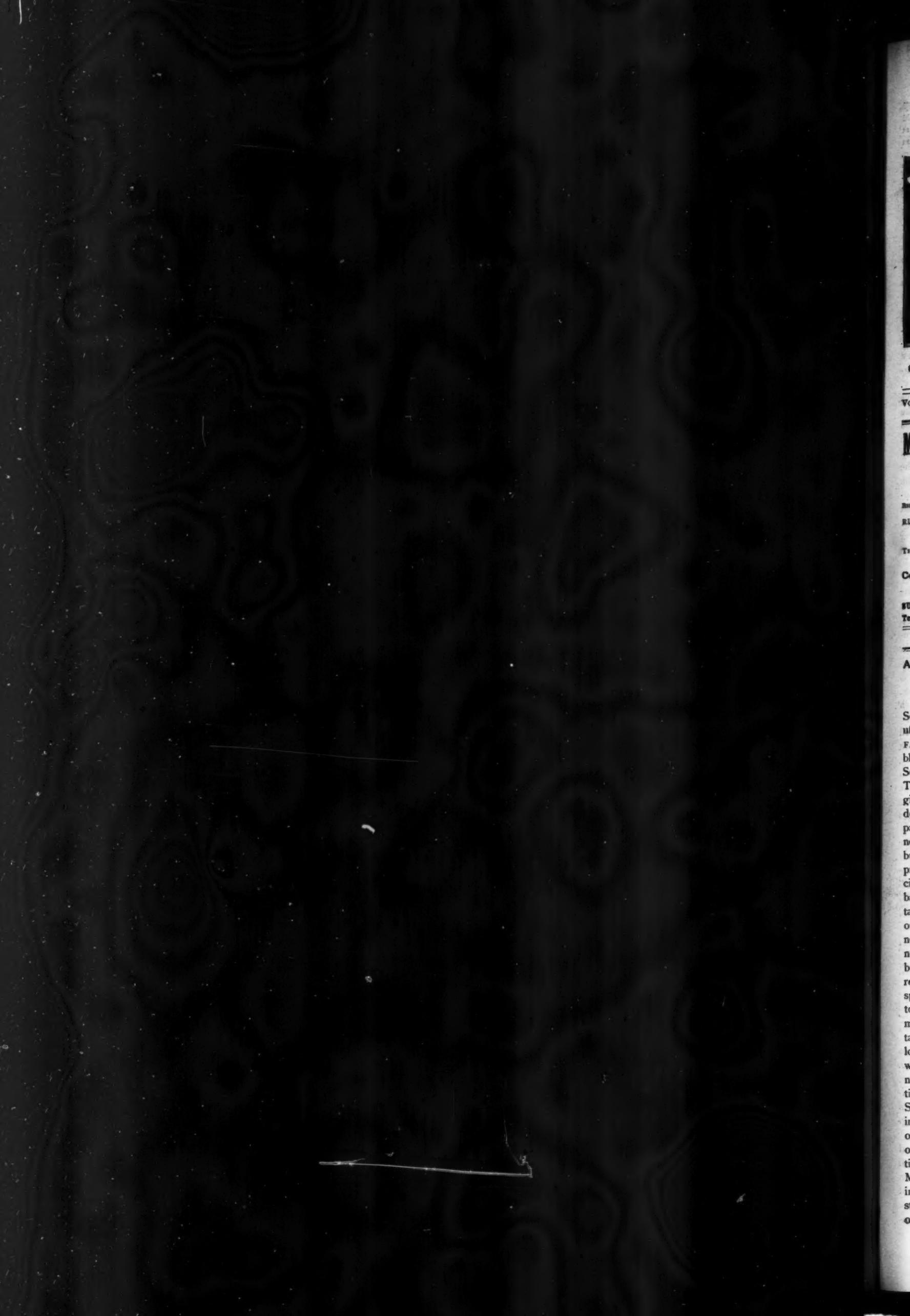
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# MANUFACTURERS' RECORD

A Southern Industrial, Railroad and Financial Newspaper.

VOL. XVII. No. 26.  
WEEKLY.

BALTIMORE, AUGUST 2, 1890.

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BALTIMORE, AUGUST 2, 1890.

### A Word to Northern Investors in the South.

To the Northern investor in the South, whether it be in mining, manufacturing or real estate, the MANUFACTURERS' RECORD is indispensable. It is a mirror held up to Southern development and progress. The latest and most reliable news is given each week in our various departments. Our Construction Department contains a weekly list of all new industrial enterprises, buildings burned, erected and building enterprises in contemplation; our Financial Department, a list of new banks organized and notes and quotations about Southern securities; our Railroad Department, a list of new projects and organizations and news of those already reported as building; our Department of Correspondence and Notes includes special letters from new Southern towns, interesting and valuable information about the resources, advantages and attractions of particular localities, articles from a corps of writers on Southern industrial topics, news notes concerning towns, localities and enterprises in the Southern States and miscellaneous matter of interest to New Englanders and others who already have investments or are looking for them in this section. The editorial columns of the MANUFACTURERS' RECORD treat industrial questions from a Southern standpoint and accentuate the points of development from week to week.

It is the most widely quoted industrial paper in the world.

Referring to the MANUFACTURERS' RECORD, Messrs. Cordley & Co., the well-known Boston bankers, write as follows:

"We rank it (the MANUFACTURERS' RECORD) as on the whole the most comprehensive and instructive organ of Southern development among American journals. This is not a hasty opinion, but is formed by testing the MANUFACTURERS' RECORD in a weekly reading of it, by our extensive and thorough knowledge of Southern enterprises and investments at Cardiff, Tenn., and other important places. We fully appreciate and heartily approve your intelligent and zealous efforts to make the South better known to the people of the North, and particularly that part of the South—the great Alleghany mineral belt—which we believe is destined soon to become the most populous and prosperous district in the United States, and to astonish the world by the variety of industries founded on its mineral wealth."

### Significance to the South of Increased Cost of Coal and Iron in Great Britain.

The increasing cost of coal and iron in Great Britain is attracting much attention in that country and also in this. Year after year mining is becoming more expensive, and the best authorities admit that the higher level of prices reached during the last year or two must be permanent. While a part of this advance is due to an increase in the wages of miners, much of it must be attributed to the decreasing supply of coal and ore, and the great depth at which they are now mined. The advance in the price of coal is having a serious effect in many industries, and it has increased the cost of iron making and of all other manufactures. Railroads, being large consumers of coal, are feeling it severely. The Iron and Coal Trade Review, of England, in discussing this subject, shows that the advance since 1888 in the price of coal means an increase

in the annual coal bill of the Midland Railroad of £165,000; of the London & Northwestern £200,000; the Northeastern £140,000; the Great Eastern £80,000; the Great Western £140,000, and others in the same proportion. The Review says:

As the consumption of coal on the railways in Great Britain is equal to about 7,000,000 tons annually, the increased charges for locomotive fuel of about 75 per cent. over the rates of 1888, rendered necessary, it is said, by the advance in wages made to colliery employes and the enhanced value in all mining requirements, will be a heavy item for the directors of the various railway companies for the year 1890 or 91.

While railroads and iron and steel producers and all other manufacturers of Great Britain must suffer from the higher cost of their fuel, it is interesting to note that there is a steady reduction in the cost of fuel to enterprises located in the South. Here the vast stores of coal have been hardly touched, and new and better mining improvements must inevitably reduce the cost of coal and coke, while in England there can be no hope of any permanent decline. To this must be added unlimited supplies of iron ore easily mined, while England's supply of ore is constantly decreasing and the cost becoming greater.

These facts are of more than sectional, or even of national interest. They must command the consideration of the entire business world. They indicate the coming of the time when, with the cost of coal, iron and steel increasing in Great Britain, and decreasing in the South, this section must be depended upon to supply the wants of many countries now dependent upon England. This means a revolution in the industrial and commercial interests of the whole world, for it is undoubtedly true, as Hon. Edward Atkinson, of Boston, said in the MANUFACTURERS' RECORD a year ago, that "that nation, or that section of any nation which possesses supremacy in the production of iron and steel, and in their conversion to final forms for use, will dominate and control the commerce of the world."

### Evidences of Southern Railroad Activity.

The increased activity in railroad building in the Southern States has been dwelt upon at considerable length in our columns at various times during the past six months. The returns of new mileage that have been given by the railroad journals have substantiated our claims that the South is growing more and more in favor as a field for profitable railroad construction and operation. The matter has been freely commented upon by newspapers and trade journals throughout the country, with the result that this phase of industrial activity in the South has been pretty firmly impressed upon the minds of the reading public. In view of the fact that the West has absorbed the energies and capital of railroad builders for many years past to such an extent that other sections of the country have been forced far into the background, it is of no little significance that the South should have advanced from a scanty 20 per cent. of the new mileage in 1886 to the leading place at present, with 58 per cent. as its quota of the new mileage created during the first six months of this year.

When presented to those who are familiar with the course of industrial and commercial events in the South during recent years, these facts concerning Southern railroad progress need no comment or explanation. They tell their own story very plainly. But in the minds of those whose acquaintance with Southern affairs is limited, various questions arise. In the light of much of Western railroad history, it is not surprising that many people should view the rapidly increasing railroad construction in the South with some misgivings and suspicions of the future. It is but natural that the investor, as well as the doubting critic, should ask at the outset: "Will this new Southern mileage pay?" "Is there enough traffic to make these new roads profitable?" These are reasonable questions, and, like all



reasonable inquiries, they can be easily answered. "Yes" is the most direct and most truthful reply to both queries. There is an ample volume of profitable traffic in store for every mile of new railroad that has been built in the South during the past half year, or that is now under construction or under survey. We do not mean by this assertion to offer a specific guarantee for each particular mile of new road, but we desire to submit that the new mileage, whether completed, under construction or under survey, is less than is needed to accommodate the great volume of traffic that already exists.

Those who have followed railroad matters in the South of late years are well aware of the frequent embarrassment of shippers on account of inadequate facilities, scanty supply of cars and the like. It has happened more than once within the past year that iron makers in the South have been very much bothered by the shortage of cars. At times they have experienced great difficulty in obtaining their supplies of ore and coke on this account, and on occasional instances furnacemen have been obliged to place their pig iron in the warrant yards simply because the great rush of plantation products monopolized all available cars. These are occasional examples, of course, but they are of sufficiently frequent occurrence to demonstrate that the railroads of the South are struggling with a volume of freight traffic that is at times almost overwhelming.

Evidence of the pressure of freight traffic in the South stands forth very prominently in the great demand for new rolling stock all through the South. Not less than half a dozen new car-building concerns are now under construction in the Southern States; the existing establishments are working under great pressure of orders, and an enormous amount of new rolling stock has been ordered from builders in the North and West by Southern railroads during the past six months. Since January 1 we have kept a record, as closely as possible, of all the new rolling stock ordered by Southern railroads, and the figures that we have thus gathered form an imposing exponent of railroad activity. We are well aware that our record is incomplete, and that the aggregate is considerably above our figures, but even as it stands the record is of great importance. We have account of rolling stock that has been purchased by Southern railroads since January 1, 1890, as follows:

Locomotives.....	221
Passenger cars.....	117
Freight cars.....	13,074

This record embraces the purchases of 43 railroad companies, whose systems lie almost exclusively east of the Mississippi. Incomplete as we are sure this account must be, it nevertheless suffices for purposes of comparison. In the absence of any official figures of the rolling stock that has been purchased or con-

structed in previous years, we cannot compare our present estimate with the records of 1889 or 1888. Two years ago, however, the Railroad Gazette published a record of the annual output of rolling stock from 1880 to 1887, the figures being given by the builders. For purposes of comparison we reproduce some of the principal items of the Gazette's table as then published:

	Freight cars.	Pass'r. cars.	Locomotives.
1880.....	17,544	412	1,465
1881.....	28,146	452	1,977
1882.....	24,852	518	2,282
1883.....	19,504	647	2,067
1884.....	11,915	446	1,149
1885.....	6,153	319	800
1886.....	16,241	513	1,436
1887.....	30,301	730	2,044

These figures fall short of the exact aggregates, as do those which we have submitted above, but for purposes of comparison the two tables may be presumed to be upon an equality of accuracy. The correction and completion of both records would not alter the comparison. A glance at the figures shows, therefore, that the increase of freight equipment of Southern railroads during the past six months exceeds the entire output of the country in 1884, is more than double the output in 1886, and is nearly one-half of all that was made in the whole twelve-month of 1887, which stands in history as the year of greatest activity in American railroad building.

Do not these figures indicate that the railroads of the South are busy? Are not these facts unmistakable evidences of great industrial and commercial activity in the Southern States? We say yes.

#### A Great Steel Plant in Tredegar, Ala.

Work has been commenced upon the foundation of the great steel plant at Tredegar, Ala., recently mentioned in the MANUFACTURERS' RECORD. The letter of Major West, published in this issue, shows that this plant is to have a daily capacity of 300 tons of finished steel; that the buildings will cover 22 acres of ground, require 18,000,000 bricks for their construction, and that employment will be given to over 3,000 men, mostly skilled mechanics. This is the greatest single enterprise ever established in the South, as regards the number of men to be employed, and its construction means that Tredegar will become one of the leading industrial centers of the country. The MANUFACTURERS' RECORD has often expressed its belief that Alabama would become an important producer of steel, and supplement its remarkable record of iron making with an equally good one in steel making. Tredegar, or Jacksonville, as the postoffice authorities still designate this town, comes to the front with a steel enterprise of great magnitude that must have an important influence upon the whole South. The company which will build this plant has secured a site convenient to railroads and sufficient ore lands to make it independent, so far as its supply of high grade ore is concerned, for generations to come.

#### To Import Bessemer Ores for Virginia Furnaces.

Some months ago the MANUFACTURERS' RECORD made the first announcement of the intention of the managers of the Norfolk & Western Railroad to import Cuban ores via Norfolk for smelting in furnaces along the line of that road. It has been the aim of Mr. Eddy, the vice-president of the Norfolk & Western, to secure return freights for the thousands of cars that now carry coal from Pocahontas to Norfolk, and, as stated some months since, he believed that this could be accomplished by the importation of Cuban ores, and that at the same time the manufacture of Bessemer pig iron in Virginia would in this way be largely developed. Carrying out this plan, some of the leading capitalists interested in this road have organized a \$5,000 company, with the entire capital reported as subscribed, which has purchased over 38,000 acres of land, including extensive ore properties in Cuba. The ore mines are about 22 miles from Santiago. A railroad will be built from the mines to the mouth of the Sigua river, where a deep-water harbor will be constructed. Extensive mining operations will be vigorously pushed, and the ore will be shipped from Norfolk to Virginia furnaces along the Norfolk & Western at low freight rates. This move on the part of the Norfolk & Western will have an important bearing upon the future of Bessemer iron making in the South; but, as previously stated, the MANUFACTURERS' RECORD believes that there is sufficient Bessemer ore of equally as high grade as the best Cuban that will soon be tributary to Southwest Virginia and East Tennessee furnaces to meet all the demands that can be made upon it, even though every furnace now building in that section and dozens of others should draw their supplies from this source.

#### The Transfer of Industries.

Commenting on the transfer of manufacturing enterprises from New England to the South, as illustrated in the removal of extensive iron works from Boston to Middlesborough, Ky., the St. Louis Age of Steel says:

The transfer of industries is one of the most strongly marked and distinctive features in modern industrial life. Its economic causes are to be found in the exhaustion of local supplies, the development of new areas and the changing centers of commercial distribution. The industrial decline of New England is in obedience to the laws named. Its iron and steel manufactories are largely things of the past. A few years ago three-fourths of the steam boilers made in the country were made in New England. Machine shop, planing mill machinery and steam engines were among its most prominent and thriving industries. Now they are bought in Pennsylvania and Ohio.

The oldest iron manufacturing works in Massachusetts is being transferred to Kentucky. It was founded by Cyrus Elder, who was an expert in the making of gun metal, and in the South Boston Iron Works

produced the best of naval, siege and field guns. Some 200 men are employed at these works, and the removal of the plant is not a consequence of trade stagnation, but the necessity of getting nearer to the base of its supplies of coal and ore. Proximity to the source of supply is in many cases the only escape from the intense and ruthless competition of modern times, and what is true of the iron industries is applicable to all other branches of manufacture.

The depopulation of manufactures from the Eastern States to the West and South will largely change the old centers of wealth and industry. These displacements may entail some local misfortune and break up some time-honored establishments, but in a general and national sense the distribution of industries is an economic necessity and an industrial blessing.

This Southward trend of industry is one of the most remarkable features of American industrial history. Men of sound judgment who have accumulated great fortunes in the North, now realize that the South is the coming country, and they are rapidly making heavy investments in this section. The wise men of the East are trying to get in on the ground floor of Southern development, fully appreciating the fact that the next five years will show greater progress in the South than has ever been made by any other section in the same length of time.

#### Imports and Exports of Southern Ports.

The report of the bureau of statistics concerning our foreign commerce shows for the fiscal year ending June 30, 1890, a marked increase in the value of the imports and exports of the Southern States. During the previous fiscal year which ended June 30, 1889, the total value of the imports and exports received and sent from twenty-one Southern customs ports was \$284,043,633. This past year shows, however, a value of \$338,013,930, or an increase of \$53,970,297. From the statistics of this report the following figures have been compiled:

	Value of Foreign Imports and Exports Combined for
	1890.
Baltimore, Md.....	\$27,123,856
Beaufort, S. C.....	1,165,010
Brazos de Santiago, Texas.....	1,081,167
Brunswick, Ga.....	7,764,355
Charleston, S. C.....	14,444,395
Corpus Christi, Texas.....	5,751,059
Fernandina, Fla.....	296,835
Galveston, Texas.....	24,862,623
Georgetown, D. C.....	257,943
Key West, Fla.....	1,536,789
Mobile, Ala.....	3,479,444
New Orleans, La.....	122,858,272
Newport News, Va.....	7,012,549
Norfolk & Portsmouth, Va.....	14,336,519
Pearl River, Miss.....	1,068,352
Pensacola, Fla.....	3,474,286
Richmond, Va.....	8,936,040
Saluria, Texas.....	3,075,176
Savannah, Ga.....	31,359,794
Teche, La.....	1,021,004
Wilmington, N. C.....	7,071,781
Total.....	\$338,013,930
Increase in 1890 over 1889.....	\$53,970,297

Of the various ports, New Orleans leads with an increase of \$24,576,816. Baltimore is second with an increase of \$21,288,390. With but few exceptions every one of the Southern cities shows a most gratifying augmentation.

Surely the manufacture of iron and steel in the South has begun to tell very perceptibly, for there has been a marked decrease in the imports of those two commodities from Europe. There has been a corresponding in-



crease in the export of those products, both in the rough state and in manufactured forms.

Coming to cotton, the report says: "The value of our exports in raw cotton in 1890 amounted to about \$251,000,000, and was the largest annual export in the history of our commerce, except in the year 1866, when it was \$281,385,223, but this large export was in consequence of the high price of cotton at that time." In 1866 the cotton exported amounted to only 650,572,829 pounds, while in 1890 the amount reached 2,471,793,358 pounds, or 1,235,896 tons." These are accurate statistics which show beyond a doubt that the growth of the South is constant and rapid, based on the value of its products and the industry of its people.

### The South's Attitude Toward the Force Bill.

The position taken by the MANUFACTURERS' RECORD in regard to the Force bill has been endorsed and sustained by the whole South. The boycott movement was a tempest in a teapot and was repudiated instantly by every industrial and commercial organization in the South. It was, as we said at the outset, an irritating and mischievous agitation which could not possibly accomplish anything good, and would merely stir up people with fire-eating proclivities and give politicians and partisan newspapers ammunition to use against the South, and in justification of the proposed measure. The MANUFACTURERS' RECORD is rejoiced that strong influences are now at work to defeat the Lodge bill. Pressure is being brought to bear at Washington from all quarters to suppress the proposed untimely and unwise legislation. Northern business men are being heard from and the effect is already apparent on the Republican side of the Senate. We would again urge upon Northern friends of Southern industrial development that they communicate their views upon this question to their representatives in Congress. It is likely that a full month will elapse before the Force bill comes back to the Senate from the committee room, thus affording time and opportunity for a consensus of opinion of the whole country, in the face of which it is scarcely credible that the bill will be enacted into law.

Apropos of Southern development and the Force bill, the MANUFACTURERS' RECORD is in receipt of a letter which, in view of the fact that its author, Col. George B. Cowlam, was an officer in the Federal army and is a Republican, will be read with an interest beyond that which its clear and forcible statement of the case would entitle it to. Col. Cowlam, though a Northerner, is one of the most prominent men in the South and is largely interested in industrial development, being the owner of extensive and valuable mineral and timber properties in Eastern Tennessee and Western Carolina. He writes as follows:

KNOXVILLE, TENN., July 25, 1890.

Editor Manufacturers' Record:

I regard the steady, unflagging and systematic work of the MANUFACTURERS' RE-

CORD for many years past, in disclosing the great and varied natural wealth of all portions of the Southern States and the opportunities for its profitable development, together with the periodical, tabulated record of the progress of Southern industrial expansion, as having been more potent than any other single instrumentality in bringing about matters in the creation of wealth which are unprecedented even in American history. The South needs only that its resources shall be made known and its advance recorded.

Southern industrial progress is exerting an indirect force more valuable even than the enormous material wealth it is producing. It is bringing about, by the establishment of like institutions, common interests with all other sections of the country.

Whenever our politicians and legislators shall get into their heads a dim suspicion that the daily work of sixty odd millions of people, each one propelled by direct needs and ambitious to do with his might what his hands find to do, is more likely to solve the problems of national salvation than is the eternal and pestiferous tinkering and meddling of unscrupulous political leaders anxious only to perpetuate themselves in public notice by estranging and antagonizing the people of different sections of our country—or whenever our people realize this fact—we shall be able to eliminate the only friction which prevents our national industrial machine from reaching its fullest results in producing and exchanging the wealth of our land, and in securing that harmonious and perpetual Union for which our great civil war opened the way.

GEORGE B. COWLAM.

### Mr. Rice and His Work.

An article published a few days ago in the Times, of Kansas City, Mo., makes the founding of the American National Bank of Boston the occasion for a review of the work of Mr. W. P. Rice, beginning with his emigration to Kansas from New England, seven years ago, without as much as a hundred dollars he could call his own, and bringing him up to his last enterprise, which is the crowning effort of his truly remarkable career. We print the Times' article elsewhere in this issue as showing the character of Mr. Rice's work in the West and his standing in that community, and because the narrative is interesting, timely and pertinent, in view of the work he now has in hand, which we believe is of the greatest value and importance to the South. The record of his seven years in the West and South is brilliant, yet not erratic, progressive, but always business-like. He has shown a wonderful genius for seeing and taking advantage of opportunity and doing the right thing at the right time. It is not strange that a man with such elements of leadership should become a leader and surround himself with a strong following, as Mr. Rice has done. The MANUFACTURERS' RECORD counts his identification with Southern interests fortunate for the South, but not less fortunate for the Northern investors whom he has influenced toward a section which promises a greater degree of safety and more profit for investment than any other in this country or in the world.

We are advised that most satisfactory progress is being made in the organization of the American National Bank, and that in all probability the \$1,000,000 of stock will be over-subscribed, so great is the demand for it from every section of the country. The enterprise has been received with special favor and enthusiasm in the Southern States.

## THE MISSISSIPPI RIVER.

A Channel Formed by Nature's Levee Work Should Be Improved and Perfected in the Same Way.

[Written for the MANUFACTURERS' RECORD.]

That great area of 40,000 square miles comprised in the Mississippi Delta, which from Commerce, Missouri, to the mouth of the Mississippi river, a distance of more than 600 miles in a direct line, was once an estuary of the Gulf of Mexico. How this immense sea was changed to a fertile valley was explained by the late Captain J. B. Eads, whose views have obtained universal acceptance. Captain Eads' theory was that when the Mississippi river forced its way through a spur of the Ozark mountains, its waters being highly charged with sedimentary matter, filled this ancient estuary with alluvial deposits to the height of about three hundred feet above the sea at the upper end of the basin. This process went on continuously until the delta was formed. The surface of the land thus made has a comparatively regular descent from the upper end of the basin to the gulf, being at Gaines' Landing, midway to the gulf, about 140 feet above the sea. Through these deposits the river winds its tortuous course in a channel about 1,150 miles long.

Experience and observation prove most conclusively that the quantity of solid matter which the water of the river is able to hold in suspension is strictly regulated by the velocity of the current. Therefore, during the natural process of this land formation, whenever the flood waters escaped over the banks of the channel, the loss of current in the water thus escaping caused the sandy or heavier portions of the solid matter held in suspension in it to settle almost immediately on the submerged banks, while the argillaceous and lighter portions, which take longer to settle, were carried back by the feeble current to the swamps or lower lands, on which they were deposited over a much more extensive area. These lighter matters now constitute the blue and other colored clay strata which are found in all parts and at all depths of the basin. The river banks were thus kept constantly higher than the lands more distant from the stream. Before any levees were built on them they were usually from ten to fifteen feet higher than the lands one or two thousand yards distant from the river.

The size of the flowing volume of any river constitutes a very important element in determining the velocity of its current and as the loss of volume over the natural banks has the effect of producing a more sluggish current in the main channel, a deposition of sediment resulted wherever this loss occurred.

In this manner the bed of the stream, during each successive flood, was built up higher and higher, while the water escaping over the banks built them up also.

Thus it came to pass that the Mississippi became what a writer of the last century described it—a great ditch on the top of a ridge considerably higher than the valleys on either side of it. Nature constructed it in the course of centuries, long before white men ever heard of its existence. When it was discovered by Spanish and French adventurers and the fame of its fertility was carried to Europe, the era of settlement began, and with it began also the construction of defences against overflow. The first levee was commenced with the founding of New Orleans in 1718 and was 5,400 feet long. In 1728 thirty miles of levees were built by planters. That year the levees extended forty-seven miles above and below New Orleans. In 1730 their length was fifty-five miles. These proving insufficient, the Spanish governor, General O'Reilly, ordered more to be constructed

under penalty of land confiscation for disobedience. In 1828 others had been built along the banks nearly to the mouth of the Red river. At that early period, when planters became impoverished by their outlays for this purpose, parish and county taxes were levied to carry on the work, and when that resource was exhausted the States came to the rescue. In 1840, assisted by a congressional grant of \$6,772,379 acres of public lands, the States of Louisiana, Arkansas, Mississippi and Missouri undertook the work, and in 1853, as reported by the chief engineer of the United States army, "the river was leveed, with few exceptions, from Cape Girardeau to New Orleans on both sides with embankments, averaging four feet high."

The levee was not a Spanish-American invention. It had been used in Europe successfully to prevent inundations. The principle was the same as that employed by the Hollanders, who built great dykes to shut out the encroachments of the ocean. They had been used on the banks of the Hoang Ho in China for ages. The river Po in Italy has been leveed from a remote period. Before A. D. 1300 there were 58 miles of very ancient construction, from Cremona to the mouth of the Oglio, and these were extended during succeeding centuries nearly to the mouth of the main stream. The conditions are the same in the valleys of the Po and the Mississippi. It is not surprising, therefore, that the Spanish settlers of New Orleans should have adopted the levee system, or that it should have been continued by their successors, and finally by the general government. The only wonder is that in a matter of such vital importance to the nation, the protection of the Mississippi valley from destructive floods should have been left for a long period to individual, local and State enterprise, instead of being assumed as a national work by the general government, to be paid for exclusively by appropriations from the public treasury.

Of the nation's duty in this respect there can be but one opinion when the subject is fully understood. The Mississippi river system is the grand natural commercial highway of the United States. The main stream, and 44 of its many tributaries, furnish 16,090 miles of navigable water ways, "presented by nature, at no cost to the people, but they are just as valuable as if artificially built." This river and its tributaries drain 1,257,545 square miles of country between the Alleghany and the Rocky mountains, contributing to the fertility of every section through which they flow. Their navigable waters pass through or intersect 21 States and Territories, giving to their people cheap transportation and a perpetual check on all railroad monopolies. These reasons were set forth at length in the resolutions which were adopted in St. Louis last April by the Mississippi and Ohio River Pilots' Society, and were re-affirmed by the Mississippi River Improvement and Levee Convention, held at Vicksburg May 1st. The preamble and resolutions were as follows:

"Whereas, the present is the only complete system of levees we have ever had between Cairo and New Orleans, thus affording for the first time, until the said levees gave way under the flood, an opportunity of proving the engineers' were correct, and whereas we observed the greatly increased current caused by said levees confining the surplus waters to the natural channel, thereby clearly showing that this is the quickest way to get rid of the surplus water, while at the same time the friction is greater on the bottom than on the banks in flood time, as the banks cave very little when they are full, as the water is aiding as a support to save the banks. The national character and national importance of this problem, as well as the nation's duty in relation to it, is shown in



the fact that the Mississippi valley and river is the receptacle and channel to the sea of the entire drainage from the twenty-five States and Territories between the Alleghany and Rocky mountains. This drainage is each successive year precipitated into this channel by reason of the changed and changing settlement and cultivation of many States about the headwaters. Furthermore, we recite that the Mississippi river is a prime factor in controlling, for the best interests of the whole people of the Union, the transportation rates of the whole country, and that there is a greater obstruction to commerce by the floods than by low water, by reason of impossibility of access to the river in times of overflow.

Resolved, That the free perennial navigation of our great rivers, wherever possible to be effected by legislation, should be demanded of the government, and receive its attention as promptly and as unstintedly as harbor improvements on the Atlantic, Pacific, Gulf or Lake coasts; that the recent floods in the lower Mississippi river, which have proven to be beyond the control of the most determined State, municipal, district and county efforts combined, should emphasize once more the great fact, always true, and heretofore always overlooked, that the Mississippi river is the nation's river, or as called by one of the greatest constructionists of the Constitution, the nation's great inland sea, and as such it comes as much within the purview of the Constitution as do the harbors of the Atlantic, Pacific, Gulf or Lake coasts."

#### A New Texas Railway.

DALLAS, TEXAS, July 23, 1890.

Editor Manufacturers' Record:

The Lampasas & Southwestern Railway, of Texas, 58 miles, will be built this year from Lampasas to Llano, via Burnet, to connect with the Santa Fe Railway at Lampasas and the Aransas Pass Railway at Llano; headquarters, temporarily, at Lampasas Springs, Texas. This road will be of 60-pound rails (steel). As soon as completed the Llano iron mines will be operated; \$2,000,000 now waiting to begin operations. The company will be ready to receive bids on iron or steel rails on August 5th; ties (oak, pine or cypress) and also on general equipment. Send all bids to the manager. The directors will meet at Lampasas August 5th, and perfect arrangements and open their general office for business. Following are the officers: President, P. A. Huffman, Kansas; first vice-president, R. E. Maddox, Fort Worth, Texas; second vice-president, J. A. Noon, Kansas; treasurer, T. F. McClure, Ohio; secretary, M. A. McLaughlin, Fort Worth, Texas; general manager, W. A. Disborough, Dallas, Texas; land agent and auditor, W. Hunstable, Dallas, Texas. W. A. DISBOROUGH, Genl. Manager.

THE Roanoke Times pays the following tribute to Major Hotchkiss, who is the founder of the new town of Shendum, described in last week's MANUFACTURERS' RECORD: "At the Hotel Roanoke for a few days Major Jed Hotchkiss, of Staunton, is stopping, and his many old friends here are glad to see him. Major Hotchkiss is perhaps the best known mineralogist in the South, and has done more to attract the attention of the financial world towards Roanoke than most men. He gave the name to the city and surveyed the line of the Shenandoah Valley Railroad. No one has greater confidence in the future of this section than Jed Hotchkiss, and no one is so well pleased as he to see it make the phenomenal progress it has. Major Hotchkiss was during the war a member of Stonewall Jackson's staff, and he gained much of his information about the valley when campaigning with the great Confederate chieftain."

## THE NEW BOSTON BANK.

How W. P. Rice's Latest Enterprise is Looked Upon in His Former Home.

A Review of His Career by "The Kansas City Times"—The Banking Business of that City Expanded and Solidified as the Result of Mr. Rice's Organization of the American National—A Splendid Record in Financiering and Town Building.

The Kansas City Times of Sunday, July 20, devoted three columns to an article on the work of Mr. W. P. Rice, including a letter from Boston concerning the American National Bank now being organized, and a review of Mr. Rice's various enterprises in the past seven years, from a Kansas City standpoint. The universal interest manifested in the Southern States in the new bank, which is to make a specialty of Southern business in New England, makes the Times' article well worth reproducing in these columns. The article is introduced by the following letter from Boston:

"Mr. W. P. Rice, the founder of the American National Bank of Kansas City, is organizing a big national bank here in Boston, likewise to be called the American National, which, from the moment its plan of operation and field of work were explained to financiers, has been regarded in the light of a brilliant discovery. Like one of those enormously profitable patents that once in a while take the country by storm, Mr. Rice's conception is causing people to wonder why it was not thought of long ago.

As everyone knows, it has been largely Boston capital that has developed the West and built up Chicago, Kansas City and Omaha, to say nothing of a score of other prosperous cities that dot the prairies from the Mississippi river to the Rocky mountains, and that this result has been attained through the aid of co-operating financial institutions, which have kept Western resources and Eastern money in closest touch. Everybody also knew, or ought to have known, that Boston followed Kansas City to Alabama when W. P. Rice and Dr. J. M. Ford, of Kansas City, launched the Fort Payne scheme, and afterward to Denison, Texas, and more recently to Cardiff, in the valley of the Tennessee. There were 2,500 New England stockholders in the Fort Payne Coal & Iron Co. who have had a chance, and still have it, to clear all the way from 50 to 100 per cent. on their original investment in the shares of that company, while many of them have made from 100 to 500 per cent. from investments in Fort Payne realty. The New England money that followed these same two Kansas Citizens to Denison is considered, in view of the four new lines of rail that this year will enter Denison, and in view of the big factories that have been secured for Denison, and in view of Denison's being, like Chicago, a natural meeting place for coking coal and Bessemer ores, is considered here as sure to double before next New Year's day, while at Cardiff every day's development strengthens public confidence in the future of that coal and iron-belted city-site. While these three have been the most conspicuous points of Boston venture—and bear in mind that Boston, in a financial sense, includes all New England—nevertheless they have had such a widely radiating effect that millions of Boston capital has gone to various other points from Virginia to Texas, and Boston's money-making eye is to-day scanning the entire South. On the other hand, every owner of Southern properties adapted to industrial development is looking to Boston for money to convert their raw materials into merchantable commodities.

Now, in view of this state of affairs, the wonder is that it did not occur to a dozen financial inventors to establish an institution to form a medium of communication between Southern resources and New England money. Far from formulating a scheme to take advantage of this condition (for the situation had long ago emerged from the crystal of theory) Southern men and New Englanders alike are, as has been said, only wondering why they didn't think of what has just been flashed upon them by an adopted son of Kansas City and the West.

The wisdom, or rather the sound, common sense of Mr. Rice's idea lies in having made a national bank the motor of this new financial engine, which will inevitably not only greatly accelerate Southern industrial development, but will, by rehandling the paper of Southern banks, which as a rule have more business than money—more absolutely safe offerings than they can accommodate—largely increase the South's available volume of funds, and at the same time profitably employ every dollar of the new bank's deposits. And there is never any trouble about securing deposits, at least in this part of the republic, for a bank that is doing a safe and profitable business.

The originality, however, of this idea of W. P. Rice's lies first in the establishment of an adjunct to the national bank, to be officiated by the most sagacious men (some from New England and some from the South), the function of which will be to bring together New England capitalists and owners of Southern fields for investment; and second, the creation of an influential Southern following by offering to one or two picked men in every promising locality in the South a certain number of the shares of the bank at par; and third, in giving to every stockholder the privilege of being introduced to the right people in New England.

This latter feature fills a want that can only be appreciated by those who are familiar with the Southern situation. Until lately owners of Southern resources have been vainly knocking at New York doors, blindly oblivious of the fact that it is the policy of New York bankers—a policy that has been adhered to with the coldest consistency—to keep all the money right there in New York. The consequence has been that men with properties capable of producing enormous returns have spent months at a time in Gotham trying to get the ear of capital, which was stuffed for their special benefit with adamantine wax. The good offices of this department of communication, to be connected with the new American National Bank of Boston, will be sought as much by investors as by owners of such properties as it will pay to develop.

The cordial favor with which the undertaking is being received at the South is, therefore, only natural, especially in view of the high appreciation in which the author of the scheme is held by the Southern people. In fact, he is regarded by them in the light of a public benefactor, while at the same time his remarkable success and his remarkable financial judgment and audacity have created for him a following in New England which is ever ready to demonstrate its loyalty by putting its hands into its pockets. There is little doubt but that if the subscription books of the American National Bank of Boston were to be opened to the public to-morrow morning, the entire amount (which is to be an even million) would be taken before the close of banking hours in New England alone. But it is a part of the plan to distribute the stock not miscellaneously, but where it will do the most good, which is, aside from the Southern allotments, among Mr. Rice's financial friends in New England and in the West, for there is nothing like *esprit du corps* and the kind of strength

which is illustrated by that old story about a bundle of sticks all tied together.

Although Mr. Rice has been at work for several weeks perfecting the plan of this \$1,000,000 national bank, whose specialty will be the handling of Southern paper and securities, with a bureau of communication between New England and the South as an adjunct, the plan was nevertheless kept from the public eye until to-day, his idea being to present it first to his financial friends in New England, in Kansas City and in the State of Kansas, as well as to prominent financial and industrial leaders throughout the South, before offering the stock to the general public. The Boston newspapers, however, having got wind of the matter, gave wings to the news yesterday afternoon (the Traveller having a two column article), and the result has been more comment in financial circles than has been called forth by any announcement since the Atchison & Santa Fe Railroad reorganization.

#### Mr. Rice's Work from a Kansas City Standpoint.

The foregoing account of the latest achievement of a man who has carried Kansas City push and pluck to Boston and the South makes pertinent some mention of his work here in Kansas City, where he was the organizer, in connection with Mr. H. P. Stimson, of the American National Bank of Kansas City, whose clearings headed the list for the month of May, and a dozen or more successful financial institutions in the State of Kansas. Conservative financiers looked with distrust upon the feasibility of a \$1,250,000 bank at Kansas City in 1886, believing that so enormous a capitalization (as it was then considered) could not here be made to earn dividends; but Mr. Rice's success in placing the stock was admitted to be a most remarkable achievement. The accuracy of his measurement of the then existing financial condition soon had a complete demonstration in the success of the bank. And the marvelous expansion of Kansas City's banking facilities which followed that demonstration was but cumulative evidence of the soundness of his views.

In 1886, when the American National was organized, the entire banking capital of Kansas City was but \$3,200,000, the largest capitalization being but \$600,000, which was the then capital of the Trader's Bank and of the Bank of Kansas City, the next largest being that of the Merchants'—\$500,000—and these three had over one-half of the entire banking capital.

At the present time the total capitalization is \$9,075,000, and besides the American National (the pioneer in heavy capitalization), there are four banks in Kansas City with a capitalization of \$1,000,000 and over, namely: the National Bank of Commerce, with \$2,000,000 of capital, and the National Bank of Kansas City, the Merchants' National and the Midland National, each with a round \$1,000,000 of capital.

#### WONDERFUL SUCCESSES IN KANSAS.

Mr. Rice never lived in Kansas City till after the organization of the American National. He came to Kansas City from Kansas, whither he emigrated after resigning his position of superintendent of the Vermont State prison in the spring of 1883. He first located at Clyde, Kan., and organized the Clyde State Bank, with a paid-up capital of \$26,000. In the spring of 1884 he organized the First National Bank of Clyde, Kan., with \$50,000 capital, merging the Clyde State Bank into it. In the same year he organized the Ames State Bank at Ames, Kan., with \$40,000 capital; in 1885 the Cuba State Bank at Cuba, Kan., with \$50,000 capital. In the spring of 1886 he, in connection with Mr. H. P. Stimson, organized the American National Bank of Kansas City with \$1,250,000 capital, which was the largest capital of any bank in Kansas City then or at any previous time. The New England friends of Messrs. Rice



and Stimson had so much confidence in the integrity and ability of those gentlemen that the stock was very largely oversubscribed and commanded a premium almost from the beginning. Mr. Rice was the first vice-president of this bank, and Mr. Stimson the cashier. Mr. Stimson is now president of the bank. The same year Mr. Rice organized the Clifton State Bank at Clifton, Kan., \$50,000 capital; the Miltonvale State Bank at Miltonvale, Kan., \$50,000 capital, and the Greenleaf State Bank at Greenleaf, Kan., \$30,000 capital. In January, 1887, he bought out a private bank in La Cygne, Kan., and organized the Linn County Bank with a capital of \$50,000, and in the spring of the same year he organized the Bank of Pleasanton, Kan., with \$50,000 capital, and the Mound City Bank of Mound City, Kan., capital \$50,000. In the spring of 1887 Mr. Rice resigned his position as vice-president of the American National Bank and organized the Union Investment Co., of Kansas City, with a paid-up capital of \$300,000, increasing that capital to \$1,000,000, fully paid up in October of the same year. Mr. Rice took the presidency of that company and has held it ever since.

In July, 1887, he bought out the First National Bank of Denison, Texas, which had a capital of \$50,000, increasing the capital to \$150,000 and becoming a director in that institution, which position he has retained ever since. Dr. J. M. Ford, of Kansas City, is the president, and the bank has had a wonderful success. In the same year Mr. Rice was a leading figure in the organization of the American Bank Building Co., of Kansas City, which was organized with a capital of \$300,000, and has erected the elegant building known as the American Bank Building, on the corner of Eighth and Delaware streets. He was one of the syndicate that purchased 267 feet on Delaware street by nearly 200 feet on Eighth street, and which our citizens will remember was a very unsightly piece of property three years ago, and which is now covered by elegant buildings, this result having been accomplished by the efforts of Mr. Rice and his friends. The Massachusetts Building, situated on Eighth street, in the rear of the American Bank Building, is the result of the efforts of Mr. Rice, he being the first president of the company which erected that building. In the spring of 1887 Mr. Rice walked into Leavenworth, Kan., one day and purchased the First National Bank of Leavenworth, Kan., which had a capital of \$100,000, and the German Bank of the same city, which had \$100,000 capital, and reorganized the First National Bank with a capital of \$300,000, merging the two institutions into one. The stock of the reorganized bank was eagerly sought after at \$120 per share and largely placed in New England. In 1888 Mr. Rice organized the Abilene National Bank of Abilene, Kan., with \$150,000 capital, and in the fall of the same year the Manufacturers' National Bank of Leavenworth, Kan., with \$150,000 capital. He also organized in 1888 the Clyde Banking Co., of Clyde, Kan., with a capital of \$100,000, and the Hoxie State Bank of Hoxie, Kan., with a capital of \$125,000.

#### IN THE SOUTHERN FIELD.

In January, 1889, he organized the Fort Payne Coal & Iron Co., and raised \$1,000,000 for that company in the short space of five weeks, the entire amount being secured from New England people. In February, 1889, the officers and directors of the Fort Payne Coal & Iron Co. commenced operations, and have now a city at Fort Payne of fully 4,000 inhabitants—an increase from about 500. The building up of Fort Payne he assisted very materially by organizing many enterprises and industries, among them being the First National Bank of Fort Payne, with \$50,000 capital; the Bank of Fort Payne, \$100,000 capital; the Fort

Payne Investment Co., \$140,000 capital; the Rice Investment Co., \$250,000 capital; the DeKalb Lumber Co., \$30,000 capital, and the Rushmore Hardware Co. with \$20,000 capital. Mr. Rice was elected president of all these companies and holds that position now. He was largely instrumental in the organization of the Fort Payne Furnace Co., \$100,000 capital, and the Fort Payne Rolling Mill with \$150,000 capital. He then invested largely in real estate and buildings in Fort Payne, having put up the finest block in town—a two-story block, 100 by 150 feet—and owns the finest residence in town, his home being at Fort Payne. In the spring of 1889 he took a large excursion of his New England friends to Denison, Texas, and organized the Denison Land & Investment Co., of which he is president, with a capital of \$1,200,000, and the Denison Building & Land Co. with \$175,000 capital. Many of Mr. Rice's Western and Southern friends visited Denison at the same time, and over \$1,000,000 in cash was invested in that city in four days' time. With the assistance of the citizens of Denison and New England investors he has organized the Denison Cotton Mill, with a capital of \$500,000, work on which is now being pushed rapidly. Dr. J. M. Ford, of Kansas City, is the president of this company.

#### DENISON AND CARDIFF.

During 1889 Mr. Rice took charge of three large excursions to Denison, Texas, and three large excursions to Fort Payne, Ala., all of the excursions taken south by him being noted for the fine class of New England men who accompanied him. In the spring of the present year, 1890, Mr. Rice started the city of Cardiff, in Tennessee, and electrified the whole country by taking an excursion from New England, filling four solid vestibuled trains, to attend the opening sale of lots. The sale of lots was unprecedented, in three days over \$1,000,000 worth of property changing hands. The Cardiff Coal & Iron Co. was organized by him with a paid-up capital of \$5,000,000, and he is vice-president of the company. He has organized the First National Bank of Cardiff with \$50,000 capital, and the Cardiff Banking & Trust Co. with \$50,000 capital; the Cardiff Building & Lumber Co. with \$50,000 capital. Mr. Rice's business has assumed such mammoth proportions that it is necessary for him to have headquarters in Boston, and he has lately organized the banking firm of W. P. Rice & Co. in Boston, and has very fine banking rooms at 15 State street. His associates in this firm are Colonel M. H. French, who has been a prominent citizen in Maine, holding now the position of member of the staff of Governor Burleigh, and Colonel W. M. Mick, of Boston, who is the Eastern director of the Union Investment Co. of Kansas City. Both of these gentlemen have long been intimately associated with Mr. Rice in business matters, and the firm is a strong one, and will undoubtedly become one of the leading banking firms of Boston and New England.

This record in Kansas and in Kansas City has no parallel, and is all the more remarkable from the fact that when Mr. Rice first landed in Kansas in 1883 he virtually hadn't a dollar. He did, however, have strong friends back in New England who had so much confidence in his judgment and integrity that they always stood ready to back his schemes.

Although his home is now in Alabama and his principal place of business in Boston, W. P. Rice has many friends in Kansas City, where he is a member of the Kansas City Club, the Elks and the Commercial Club. He is also a member of the Atchison City Club, of Atchison, Kan., and has just been elected to membership in the exclusive Algonquin Club, of Boston. In addition to his club connections, he is a member of the Odd Fellows, Knights of Honor and Ancient Order of United

Workmen, which suggests the fact that he carries \$350,000 in life insurance, which is in line with his business methods, the idea being to have that large amount immediately available in case of his death, so that his estate may not be impaired by any sacrifices.

The resolute spirit which characterizes Mr. Rice's work as a town builder may be illustrated by his first effort in that direction. When he decided to build up a town at Hoxie, in Sheridan county, Kan., it was considered expedient to make Hoxie the county seat in lieu of Keneth. Instead of a long, wearisome wrangle, he first went over to Keneth and made a contract with the citizens to move every house in Keneth bodily to Hoxie and to give each one of them the same-sized lot as they were thus induced to abandon.

#### STRONG NEW ENGLAND ORGANIZATION.

Confidence in New England in the future of Cardiff, the Southern town which he founded last spring, is being greatly strengthened by the systematic organization he is now perfecting to promote its growth. Under this plan there will soon be 1,000 of the best men in New England at work as agents to send industries and people to this strategic point. No other new town since the world began has ever had so powerful a mechanism to promote its progress as this thousand of active men will constitute. There have been appointed as general agents, to pick out the special agents in every town of consequence, men of the highest standing and influence. For instance, in Maine the general agent is Hon. M. V. B. Chase, of Augusta, assisted by Hon. Charles B. Morton, who was commissioner of navigation at Washington under President Cleveland. In New Hampshire the general agents for Cardiff will be Hon. J. M. Whipple, of Claremont, in that State, and General S. Little, of Antrim, who is a member of Governor Goodell's staff. The Vermont contingent will be in command of Hon. T. J. Boynton, of Montpelier, who was formerly chief of the United States mail service for New England under the Cleveland administration. H. F. Horton, of Providence, is the general agent for Rhode Island, A. S. Haynes, of Hartford, for Connecticut, while in the State of Massachusetts, outside of Boston, the work is under the direction of H. H. Skinner, of Springfield, and R. L. Jones, of North Adams.

The banking house of Cordley & Co. will take care of Cardiff's interests in "the Hub." The general offices of the Cardiff Co. have been established in commodious quarters at No. 4 Liberty square, where Hon. B. B. Smalley, the president of the company, is making his headquarters. It will be remembered that Colonel Smalley was the secretary of the national democratic committee in the winning Cleveland campaign.

Without going further into Mr. Rice's work in Southern town building, which embraces besides Cardiff both Denison and Fort Payne, the foregoing briefly tells the story of his record for the past seven years. Who can beat it?

ROBERT BLEAKIE & Co., of Hyde Park, Mass., have woven from ramie fibre on worsted machinery a pattern blanket of ladies' plaid dress goods. The fibre was ungummed by boiling, then opened on the "Fearnought" machine, after which it was put through the comb. The stock was then colored with cotton dyes, which are perfectly fast. The yarns show a lustre characteristic of the ramie fibre and the goods are quite soft. The boiling in the ungumming solvent seems to bleach the fibre sufficiently without treating it as a chemic, unless a dead white is desired. It is supposed that flax fibre can be treated in the same manner. Yorktown, Texas, has furnished some ramie said to be of excellent quality.

## TREDEGAR, ALABAMA

Work Begun on the Big Steel Plant, Which Will Comprise Steel Mill, Rolling Mill, Rail Mill and Cotton Tie Mill.

The New Cotton Oil Mill, Ginnery and Fertilizer Factory—A Plant to Manufacture Olive Oil and Soap Projected—New Manganese Deposits Opened—Other Points of Progress.

One of the Best Locations in the South for a Cotton Mill.

[Special Cor. MANUFACTURERS' RECORD.]

TREDEGAR, ALA., July 28, 1890.

The first thing that one feels like saying by mouth or pen is that the crops in the South never looked better at this season than they do to-day. Certainly it is some time yet before harvest, and any number of things may or might happen, but the promise was never so golden, and if nothing untoward shall transpire, the Southern people will have more money in their clothes than a Union paymaster, before your readers ever have another chance to wish the MANUFACTURERS' RECORD a happy New Year.

It follows, as naturally as a dog does a snake, that there is a pleasant state of anticipation pervading our places and our palaces. There seems to be an impression that 8,000,000 bales of cotton will about fix the aggregate of the crop, and the cotton seed, amounting to something like 600 pounds of seed to 300 pounds of cotton, will be worth nearly if not quite as much as the cotton itself. Please note the smoothness with which I prepare the way to slip in a word concerning the new cotton-seed oil mill, ginnery and fertilizer factory at Tredegar, a place in the development of which I feel heartfelt but disinterested interest.

The farmers of the Tredegar district have been in need of an establishment of this description for a long time. They have been without the service of an oil mill anywhere nearer than Rome, Ga., on the one hand and Selma or Montgomery on the other. They are justly pleased that Tredegar has stepped in to relieve their necessities. For several days the raging freight trains of the East Tennessee, Virginia & Georgia system have been unloading machinery for the plant—wheels and cranks, shafts, pulleys, engine parts; things that look like enormous peanut roasters, and all the rest of it. The contractor is put to it to get the buildings completed within the promised time, and everything is in readiness to get the machine grinding against picking time. True to the policy of making up everything at home, the oil mill was no sooner assured than arrangements were made to utilize the entire product at Tredegar. A plant for the manufacture of genuine Castile soap and virgin olive oil from Lucca has been projected, the necessary capital promised, and it is probable that it will be in operation within 90 days. This plant will give employment to about 12 or 15 men and 25 or 30 women and girls. The cotton-seed oil mill will employ 25 hands. These be small fry compared with the steel mill, rolling mill, rail mill and cotton tie mill, which together will form one of the finest and largest plants in the Southern States.

As some mention has been made of the location of this fine plant at Tredegar, it will be only necessary to state here that when in complete running order, as now projected and under construction, it will employ as many as 3,100 hands, of which all but about 600 will be skilled workmen. The buildings are laid out to cover 22 acres of ground, and the enclosed yard area will bring the ground plan of the plant up to 62



acres at least. The steel company has acquired a remarkably desirable site south of the business center of Tredegar, covering 100 acres, and will, therefore, have plenty of elbow room for the present at least. Originally it was intended to build only a 100-ton steel furnace to start with, but a careful study of the situation, markets and so on, has induced the capitalists who are backing the movement to build a 300-ton plant at once.

Last Friday the engineers of the Steel Company and the Mining and Manufacturing Company, of Tredegar, drove the first stake, and to-day a force of men is at work marking out the foundation lines, grading, getting out timber, ditching and doing all sorts of preliminary work of construction. The chief contractor for the plant, who has undertaken the entire job, is expected here from the East the latter part of next week. He will bring his principal sub-contractors with him. There will be "a right smart chance" of sub-contracting. The foundations of the leading buildings alone will use up 20,000 cubic yards of limestone, the superstructures will require nearly 18,000,000 bricks, and other things in proportion. I think you ought to compliment me upon the extreme degree of foresight I showed in locating at Tredegar when I inform you that there is every solitary thing needed in the construction of this great plant right at hand, with the exception of some of the machinery, and for its successful operation without any exception.

The next two weeks will witness the starting of the brick plants, stone quarries, lime-kilns, tramways, lumber yard, sand yard and all the other things requisite and necessary, and then it may be expected that work will be hurried on as fast as justified by economy, since the contract will call for completion ready for operation for an output of 100 tons within 15 months, and for 300 tons within about 20 months. One of the departments of the steel plant is exciting more than a little interest among the farmers of the country and Tredegar district. It is the cotton tie mill, which will be fitted to turn out steel ties enough to make a very vigorous hole in the market for that useful article. With the processes and facilities available at the Tredegar plant it will be feasible to produce a superior steel tie, furnished with a buckle far in advance of anything yet, and capable of safely and reliably binding a 750-pound bale, all at a considerably less cost to the consumer than the present iron tie, which bursts in joyful accord when applied to any bale of over 600 pounds. The neighboring planters hail this end of the steel plant as certain emancipation from the old cotton tie regime.

All the other products of the plant can be made at a cost so far below what the same articles can be produced for by old methods and obsolete machinery that I rather fancy there will be a considerable sensation in certain interests and trades when the steel company's sales agents begin to turn themselves loose. As at present intended the principal output for the first year will be rails, angle, bar, plate, structural iron, armor plate and cotton ties. Shops for the manufacture of cutlery and hardware, arms, wire, horse-shoes, nails, screws, &c., will be added as rapidly as may be required. It is possible that small independent plants in some of these lines may be encouraged and supplied with molten steel in a condition ready for the rolls. This would be practicable because, after the steel leaves the converter, it is never reheated, but goes on continuously until it comes out in the shape of whatever manufactured product it started to be at the other end of the shop. At least two manufacturers of rolling mill specialties have already made application for shops to be supplied with molten steel as above.

While "projicking" around for plants to beautify this pleasant industrial garden of ours, my expansive mind has often reached out and enveloped those humorous subjects which of yore used so often to bring the merry smiles of mirth bubbling to our beetling brows whenever we discovered new bonanzas of iron, lead, zinc, tin or other mercies. When last I had anything to say on the subject to MANUFACTURERS' RECORD readers, we had five very promising manganese deposits opened and showing up for themselves. I then frankly admitted that we had more manganese than Messrs. C. Rieg and Blaine could coach over in a Sabbath day's journey from Maine to the White House. Since I have been silent and minding my own business, we have had the good fortune to open two more, completing our lead and fixing it so that we are protected from injurious competition. Nobody pretends to doubt now that we have all the manganese on the property that the most exacting speigelsen mill could demand. I dislike to discount probabilities, but negotiations are nearly perfected for the establishment of a "ferro" plant in connection with the steel works. Capital is offered all around for that purpose, and, practically, we have only to select our party and go ahead. I regard a "ferro" plant here as too much of a certainty to bother about it.

The gratification of one desire creates another. Now that I have captured the steel plant, and can jump on my horse and go over and see the boys working on it, I am direfully lustful for a big, big cotton mill, one big enough to give employment to the women, girls and boys of the skilled artisans who will work in the former concern. When there is only one producer in a family to three, four or five consumers, the wages, of a Saturday night, disappear like a snowball in a cook stove, and then there is discontent and no margin for the schooner of beer which maketh glad and maketh his nose to shine. On the contrary, where all the consumers are producers, there is an agreeable aroma of surplus hovering around the artisan's home over Sunday, and peace and contentment reign supreme. Strikes do not occur under such circumstances, and the walking delegate is asked if he won't go before he takes something. Wherefore I am going East in quest of a cotton factory—40,000 or 50,000 spindles will do.

The cotton of the Tredegar district has been long celebrated for its high grade, its length of fibre and strong white lint. For years fancy prices have been paid for it by certain Eastern mills. There is an ample supply, as I am advised that 70,000 bales were last year compressed in Calhoun county. Markets are close at hand. Our climate is perfect, water supply pure and abundant beyond all possible call upon capacity, cost of living low, no severe winters or summers—just the place for the cotton manufacturing industry. Railway facilities are excellent and improving, and a fine site and guaranteed supply of water can probably be had for the asking.

I mention this matter casually because I know that not a few New England mills are contemplating a move toward the South, and their proprietors are always sure to see the MANUFACTURERS' RECORD. They will have to travel far before discovering a place as well adapted to the industry as Tredegar.

It was intended to close with a few remarks upon the soul-inspiring theme of extensive new iron discoveries, baryta, bauxite and other things, but this isn't any Ollendorf system. I cannot teach the whole circle of Southern industrial development in one easy lesson.

GOLDSMITH BERNARD WEST.

**If you wish to keep posted on the progress of the South, read the MANUFACTURERS' RECORD. Price \$4.00 a year.**

## GENERAL NOTES.

THERE is great activity in real estate in Bedford City, Va., and it is said that the sales during the last few weeks aggregate \$300,000 worth. The Lynchburg Virginian, referring to this activity, says: "The transactions for the past week footed up over \$40,000, and some big money was made by several investors. One lot on Bedford avenue, near the site of the new passenger depot, sold last Saturday for \$900; on Tuesday it was sold for \$1,300, on Wednesday for \$1,500, and is now held at \$2,000. Every lot in that block has been sold at prices ranging from \$700 to \$1,000. A Lynchburg syndicate on the 5th purchased 53 lots, and sold several days ago at a profit of \$8,000. Mr. J. M. Berry, the president, is daily in receipt of telegrams from parties requesting him to select lots for them, and reports some truly wonderful investments."

REPORTS say that the rice crop in Louisiana is magnificent. At Point-a-la-Hache first rice is heading and will be ready for the sickle early this month.

HARRIMAN and Rockwood, Tenn., are now connected by telephone. The Genesis & Obed River Telephone Co. has just completed its line between those two points.

THE Anniston (Ala.) Hot Blast, referring to the big steel plant to be built at Tredegar, 12 miles from Anniston, says: "The location of the great steel plant at Tredegar will work a revolution in the iron business of the Anniston district. An excellent quality of steel has been produced in this county often from crude ore, and there is no reason why it can not be done on an extensive scale. The product of the plant will also be manufactured into useful articles to enrich the people of this county. Let other such plants follow."

THE Middlesborough (Ky.) News reports a building boom in that place and gives a list of buildings and plants actually under construction, the aggregate cost of which it figures up as \$1,298,000. In addition to this plans and specifications have been made for other buildings to cost \$175,000, the contracts for which will be let at once "Thirty days from now," says the News, "will see more buildings under construction than there are now or have been at any previous time here. There are now in Middlesborough three large brick plants which will be furnishing brick within thirty days, in addition to the large plant already located here, and within that time Dillwyn Springs, Pineville and Barbourville will be each turning out brick at the rate of 75,000 per day, a good portion of which will seek Middlesborough as a market. There is every reason to believe that all kinds of building material will be very cheap in a few weeks."

THE weekly special tobacco reports of the Richmond correspondent of the New York Journal of Commerce serve as a guide to the tobacco trade in all-Northern and European markets, because they are invariably conservative and accurate. In his report of July 21 the correspondent refers to earliness of the crop this season in "the bright belt," and says that some is now being marketed from North and South Carolina. Of the latter he says: "For quality and bright color it is unexcelled, but the quantity raised this year is merely experimental, but the several hundred thousand pounds so successfully cured further south of the old North Carolina bright belt is sure to induce larger and larger planting hereafter, opening up there a new fresh land and earlier crop than has heretofore been sold. Tobacco requires a certain length of time in the field and some dew to thicken and enrich it. The

rich mahogany spready wrappers, which are now recognized standard grades with the trade, were deficient in last year's crop supply, due to early season, which made a brighter and fancy tobacco and good cutters mainly, and a small proportion of tough fillers. This year's bright crop, also very early maturing, is likely to show the same lack of heavy mahoganies, which, with present scarcity of this grade, is most apt to advance values on such. Agreeably herewith prices are already higher, while ordinary brights show no special feature." The foregoing is an authoritative confirmation of the statements repeatedly made during the last two years in our South Carolina correspondence, of the adaptability of large areas in that State to the profitable pursuit of this industry.

In another paragraph the same well-informed writer refers to the progress of Virginia and to the opportunities there for making money. He writes: "Virginia tobacco farms are probably cheaper than ever before, considering the new railroad connections, healthfulness of climate, pure water and other advantages, and it cannot be that with so much mining, railroad and other developments going on, with apparently so much more money circulating, that these lands will longer remain unnoticed and unprofitable because the owners have not the means to improve them at present, but enforced new cultivation of many farms will but tend to enrich old lands in a short while. For real solid value, Virginia lands of above kinds promise surely greatest profit, pleasure and health to those who are able to buy and cultivate them. Virginia needs a thrifty, industrious native white population, the influx of which is slow, as little is known of advantages and inducements offered by flaming advertisements. Our numerous new towns are on a boom and a solid basis, and the lands must follow. The development schemes will soon take them up, when once started."

THE new wharf at Sparrow's Point, Md., where the Pennsylvania Steel Co. is building great steel works, has been completed. The wharf is 700 feet long and 100 feet wide. Six railroad tracks are being laid upon it, and it will be equipped with the latest machinery for discharging ore from vessels. The water between the new pier and the old is being deepened, so that steamships of the heaviest draught will be able to go alongside and discharge their cargoes. The old pier has been fitted with a coal conveyor, which is able to convey the contents of a 25-ton car to the ship in 30 minutes. Rapid progress is being made by the steel company in building their Bessemer mill, the steel framework being up and under roof. Two blowing engines to operate the machinery of the mill are placed in the engine-room of the blast furnaces, where there are already four engines to operate the latter. Fifty dwelling-houses are being erected for the company's employes, as was noted some time ago. The Willsamport & Chesapeake Lumber Co. has just completed a planing mill, to be operated in connection with their saw mill. The latter has an output of 200,000 feet daily.

THE Whispering Valley Co., of Virginia, chartered on December 18 last with Thomas H. Garnett, president, and Robert T. Hubbard, secretary, both of Dillwyn, Va., has been working very quietly since its incorporation, but has already acquired about two miles in vein length of specular, magnetiferous and red hematite iron ores and gold and sulphur bearing ores. There is a "spar" parallel to its veins. The principal operations of this company are to be conducted in the valley of the Whispering creek, in Buckingham and Cumberland counties. The Orange & Keyville Railroad will pass through this locality, and a branch of the Farmville & Powhatan Rail-



road is projected to the company's properties. The charter of this new corporation permits it to mine and manufacture mineral products, to improve real estate and acquire land for town sites, and to establish a bank or banks for the benefit of its employees. The postoffice, as has been stated, is Dillwyn, but the company has christened the place "Bolling," and doubtless intends to have the name of the postoffice changed.

THE First National Bank of Middlesborough has changed hands, and its president, Hon. M. C. Alford, the candidate for lieutenant governor of Kentucky, has resigned. The new owners of the stock are said to be Mr. Theodore Harris, president of the Louisville Banking Co., of Louisville; Mr. J. C. Treat, of Hartford, Conn., and Mr. C. H. Lochard, of Indiana, and other prominent capitalists of Middlesborough. The bank was organized about a year ago and has been doing a large business.

THE Southern Timber & Mineral Land Investment Co., which has recently been organized, with offices in Kansas City, New Orleans, Chattanooga, Boston, Lynn, Mass., Asheville, N. C., and Pittsburg, Kansas, owns lands embracing about 40,000 acres, located in Eastern Tennessee and Western North Carolina, and is now making investments in a manufacturing plant at Johnson City, Tenn. The properties of the company lie about 70 miles east of Knoxville. The capital stock is \$350,000, widely distributed in the North, South and West.

THE Lampasas & Southwestern Railway is a new road projected from Lampasas to Llano, Texas, via Burnet, a distance of 58 miles, and is of great importance on account of the access it will afford to the Llano iron district. This road is to be built this year, and will connect with the Gulf, Colorado & Santa Fe Railway at Lampasas and with the San Antonio & Aransas Pass at Llano. The company owning the Llano iron mines has a capital of \$3,000,000, and is waiting for the construction of this road before commencing operations. The railway is to be laid with 60-pound steel rails, and the company will be ready for bids by August 5 both on the iron and the ties and general equipment. The general office (for the present) of the company is at Lampasas, and the officers are as follows: P. A. Huffman, of Kansas, president; R. E. Maddox, of Fort Worth, first vice-president; J. A. Noon, of Kansas, second vice-president; M. A. McLaughlin, of Fort Worth, secretary; T. F. McClure, of Ohio, treasurer; W. A. Dishborough, of Dallas, general manager, and W. Hunsballe, also of Dallas, land agent and auditor. All bids should be addressed to General Manager Dishborough.

THE Southern Investment Co., of Ashland, Ky., has been chartered under the laws of Kentucky with an authorized capital of \$500,000, \$150,000 of which has already been paid in. The company has purchased 30,000 acres of mineral, timber and agricultural lands in Lewis county, Tenn., and has laid out the town of Hohenwald, which will be the county seat. Two furnaces are now in operation, and a number of new industries are projected.

THE annual report of Captain J. H. Willard, United States engineer, stationed at Vicksburg, has been submitted to the government. It treats especially on the improvement of the Red river, and estimates that \$475,000 could be very profitably expended on this work in the fiscal year ending June 30, 1892. The most serious of the many difficult problems to be dealt with in connection is the disposition of the drift, which runs at some times in such quantities as to render navigation hazardous by day and impossible by night. Many times the frequent jams in the river occur when funds are exhausted, and

delay probably means that new rafts will form to divert the river from the bed upon which thousands of dollars have been expended. Should the survey of Old river, now in progress from Fulton to the Achafalaya, indicate that a slack-water system is feasible, and for the best interests of navigation, the question of drift would assume large proportions, possibly even prohibitory. There can be little doubt that it would forbid the general application of any existing system of movable dams, or even of fixed dams. Some means would have to be devised to catch the drift and keep it out of the channel way and locks, and this would necessitate very long guard walls with traveling cranes to handle very heavy timber. Perhaps a combination of the two systems would be made, but in the meantime certain general principles must be followed, principally these: A systematic clearing of the banks for some distance back; an efficient snag-boat service patrolling the river; extending the survey to include the whole valley; the construction of a substantial system of levees to restrain the greatest floods, either alone or in partnership with the riparian States; closing gradually every outlet at which the main streams are depleted at low water; fixing caving banks to confine the main stream to the channel selected for it; and lastly, to exercise watchful care to prevent injury to the main streams by cut-offs or outlets. Captain Willard, in that portion of his report relating to the harbor of Alexandria, La., repeats the recommendations in his report of February 1890.

Major Durnell, United States engineer at Mobile, Ala., has also submitted his report. The project of 1880 for improving Mobile harbor, i. e., to secure a channel 17 feet deep with a uniform width of 200, has been completed. It is now proposed to continue the improvement on an enlarged project for securing a channel 23 feet and 280 feet wide. The estimated cost of this new project is \$1,980,000, and \$1,500,000 is recommended as the amount that can be profitably expended during the fiscal year ending June 30. Five hundred and thirty-five thousand four hundred and twenty dollars will complete the existing project for the improvement of the Black Warrior river from Tuscaloosa to Daniel's creek, which consists of the construction of five locks and dams, and which proposes to furnish slack water navigation for barges of six feet draft—\$500,000 is recommended as the next appropriation. Eight thousand dollars will complete the four-foot channel project of the Warrior river, but if the project to make a six-foot channel, which is recommended, is adopted, \$250,000 should be appropriated. Twenty-three thousand dollars is recommended for the removal of obstructions in the Tombigbee river, from Walker's bridge to the mouth. If a six-foot channel, however, should be determined upon, \$500,000 will be necessary. Three thousand dollars is recommended for the removal of obstructions in the Noxubee river. To secure a depth of 12 feet from Moss Point on Pascagoula river to anchorage in the bay, \$89,000 will be required, and \$50,000 is recommended as the next appropriation; \$19,000 will complete the existing project for Biloxi bay, and that amount is recommended.

A DISPATCH from Pineville says: "It is understood that the much-talked-of option of the James S. Churchill syndicate for the purchase of the Pine Mountain Coal & Iron Co., of Pineville, Ky., has matured and the option allowed to expire without being closed. The Pineville Co.'s plant was offered to Churchill for \$1,600,000. This would have been accepted but for a conflict between the managers of the Pineville Co. The president of that company controls the majority of the stock, but the general manager, Mr. Ray, has a majority in the board of directors. The

former gave an option on the property for a lower sum than \$1,300,000, and the Churchill people, hearing of it, refused to pay that sum. It is very probable that negotiations will again be opened up. The East Tennessee, Virginia & Georgia people are also said to be after the Pineville property."

STILL another town and development company has been organized in the Sequatchee valley, Tenn. It is the Dunlap Coal, Iron & Railway Co., which owns 10,000 acres of coal lands adjoining Dunlap. Coal can be run to the center of the town by a gravity road, and Little Brush creek drains the land. The town-site consists of 2,250 acres surrounding Dunlap. The company has also secured about 10,000 acres of red and brown ore lands.

PROBABLY the largest fruit farm in West Virginia is the Becker farm, near Harper's Ferry. It contains 5,000 apricot trees, 37,000 peach trees, 3,000 plum trees, 5,000 miscellaneous fruit trees and 35,000 grape vines.

MEMPHIS seems to be becoming a more and more important contracting center and base of supplies. One firm alone in that city has contracts aggregating 455 miles of railroad, which represent a cost of about \$2,000,000.

A POWDER mill is to be built at Ceredo, W. Va., and it is reported that it will manufacture smokeless powder under patents recently purchased by a New York syndicate.

A GREAT pipe line enterprise now under way will help to develop extensive oil-fields in West Virginia, and, if reports are correct, prove of much interest to Baltimore, as it is said that this city is to be the seaboard terminus. This line, according to particulars gathered from the Connellsville (Pa.) Courier, will extend from Greene county in that State through the West Virginia oil fields to Baltimore. Work is now in progress on the line east of Cheat river and a large force is engaged laying pipe as fast as possible. The line will be over 250 miles long, and its cost is estimated at \$1,500,000, or \$6,000 per mile. The pumping stations will be fitted up with engines of 400 horse-power each and all appliances of the latest and most improved pattern. The stations will cost \$20,000 each. The main offices of the new Southern Pipe Line Co. are now in Oil City. The Standard Oil Co. is said to control this enterprise.

A COMPANY, to be known as the Florence Land Sale Co., has been organized at Florence, Ala., for the purpose of promoting the material interests of that city by advertising it, and also by conducting public land sales. The capital stock of the company is \$25,000, of which \$19,915 have been subscribed. Hon. J. J. Mitchell is president of this company, and J. B. White the secretary and treasurer.

THE wealth of Danville, Va., as recently computed, makes that city, so it is claimed, the richest in the State, per capita. The population is 12,000, and the real estate assessment is \$5,700,925. The real and personal property in the place amounts to about \$8,000,000, giving an average wealth per capita of \$750. There are 1,400 white voters in Danville, and thus it will be seen that were the wealth of the city divided equally among them, each voter would receive more than \$5,000.

THE cotton-seed crop promises to be extraordinarily large this year, and while this would naturally cause lower prices, it is possible that a combination of the farmers may prevent any decline. The Farmers' Alliance proposes to unite in establishing a uniform price on seed at all markets. This proposition has so

aroused the buyers that they suggest that they combine to reduce competition and take the control of the market out of the hands of the sellers.

GEN. J. T. WILDER's new town at Crawfish Springs, Ga., which was the subject of an interesting article in our issue of June 21, is every day assuming a more urban-like appearance. The excavation for the new hotel has been completed, and it will not be long now before the building is finished. It will contain 70 sleeping rooms and be heated by hot water in winter, while in the warmer seasons a current of air will be forced through the building, thus affording a complete system of ventilation. In the business portion of the city 1,000 acres have been laid out and platted. The same amount has been reserved for the manufacturing district, where it is contemplated to start two furnaces, a rolling mill of 100 tons capacity, a cotton factory with 30,000 spindles, nail works with a daily capacity of 1,000 kegs, coke ovens with boilers to be heated by the waste gases from the ovens.

### Middlesborough Notes.

[Special Cor. MANUFACTURERS' RECORD.]  
MIDDLESBOROUGH, KY., July 20, 1890.

The charter of the South Boston Iron Works has been registered at Pineville, and as soon as the plans of the new buildings are received, the work of building will commence at once. I understand the main building is to be three hundred feet wide by twelve hundred feet long, and the complete plant will occupy a space of thirty-five acres of ground.

Negotiations are now pending in Middlesborough for another large blast furnace, the same to cost \$900,000.

The Mingo Mountain Coal & Iron Co. are now making a most excellent quality of coke, and some new ovens are well under way, and are rapidly approaching completion. The Belt Railroad is extending its rails to this plant.

The chimney of the Watts Steel & Iron Co.'s plant is now nearly completed, and has already attained the enormous height of 196 feet from the ground level. The works are progressing rapidly and are already making a magnificent appearance.

Propositions have been made to the town company for the construction of the Blaine side dump cars and of other freight cars; the company is to incorporate with a capital of \$200,000, and will erect a factory to cost not less than \$50,000 and employing three hundred men. Negotiations are also pending for the building in this city of a large plant to manufacture forges, blowers and drilling machines.

Capt. Martine, superintendent of the Knoxville water works, has been in Middlesborough for some weeks, and has already commenced the construction of the Middlesborough water works. This company has a capital of \$250,000, and agrees to furnish the city with five million gallons of water each day.

Mr. Arthur C. C. Master, superintendent of the Middlesborough Cemetery, has now got the grounds in good shape, and the work is progressing favorably and rapidly. The cemetery stands on the side of a lovely hill, between the city and Cumberland Gap, and will be a beautiful burying place when completed. Fifty acres of ground will be devoted to this purpose.

The Middlesborough Tannery Co. are making great headway in the erection and construction of the new tannery, and the buildings are already beginning to rise above the ground level.

The new dining hall of the Middlesborough Hotel is now completed, and is one of the handsomest rooms of its kind in the Southern States. The new additions of the hotel are also rapidly approaching completion.

The Belt Line Brick Works are now completed, and are turning out over 30,000 bricks per day.

The burnt district is being rebuilt, and handsome stone and brick buildings are taking the place of the former frame ones.

*If you desire to establish*

## A COTTON MILL

where you will have every advantage that could be asked, Tredegar is the place. It is surrounded by a rich cotton district producing a fine grade of long staple cotton; it is one of the healthiest places in the South; labor is abundant and cheap; the purest freestone water can be had, and a cotton mill can get its raw material right at its doors. Fine steam coal can be secured at the lowest price, making steam cheaper than water-power. Transportation facilities are good, and everything that could be desired to make cotton manufacturing profitable is at hand. The old name of Tredegar, and the present name of the postoffice is Jacksonville. It is the county seat of Calhoun County, which produces thousands of bales of cotton annually and is one of the richest mineral and agricultural counties in Alabama. Its present population is about 2,500 to 3,000, but this will be greatly increased by the building of many new industrial enterprises. For information regarding Tredegar's advantages for cotton mills or other enterprises, address GOLDSMITH BERNARD WEST, General Manager, Jacksonville, Ala.

**■ A Steel Plant to employ 3,100 hands has just been secured.**

[For other information about Tredegar, see next page.]



### *Why Remain in a Dead Town*

Or in a section where the future has little of promise, when Tredegar offers to every enterprising man the chance to accumulate a fortune in almost any line of industry?

There are openings here that give assurance of large profits, for the establishment of any enterprise based on iron, manganese, cotton, timber, &c. With an abundance of the highest grade of iron ore, owned by the company, within a mile of the center of the town, with the most extensive manganese deposits ever found in the United States with timber for charcoal at a nominal price there is every reason for iron making being more profitable here than at any other point in the South. Investigation on this point is requested.

A more desirable place for cotton manufacturing cannot be found. The raw cotton can be bought at the door of the mills, and the supply of absolutely pure freestone water is practically unlimited. A cotton-seed oil mill is now being built to utilize the seed that have heretofore been shipped over a hundred miles to a market.

Brick-yards, planing mills, sash and door factories, furniture factories and a wide range of other industries can be established here with the assurance of good profits. House builders and contractors are needed.

# TREDEGAR, ALA.

### *Unequaled Elsewhere*

In the country is the rare combination of minerals found at Tredegar. Iron ore of the highest grade, sufficient in quantity to run many furnaces for generations to come without hauling a ton over five or six miles. Manganese, lead, baryta, building stone of many kinds, including the most beautiful brown stone; clays for building brick, fire brick and silica brick and tiles, lead, &c., are all found here in great abundance.

Tredegar makes no claims that are not based on absolute facts. The most thorough investigation is invited.

For particulars address

GOLDSMITH BERNARD WEST, GENERAL MANAGER  
Jacksonville Mining & Manufacturing Co.,  
TREDEGAR, Calhoun County, Ala.  
(Present Postoffice, Jacksonville, Ala.)

# MIDDLESBOROUGH,

## KENTUCKY.

### There Are Now Under Contract:

A Basic Steel and Iron Plant, daily capacity 300 tons, to cost \$1,000,000 and to employ about 1,000 hands.  
 An Iron Rod Mill; A Sheet Mill; A Nail Mill.  
 Two Coke Iron Furnaces, 150 tons daily capacity each, and one Charcoal Furnace.  
 A \$500,000 Tannery—the largest in the world  
 Fourteen Coal Mining Enterprises, to employ about \$2,000,000 capital.  
 A Dozen Wood-Working Enterprises.  
 A Twelve-Mile Belt Railroad.  
 Tile Works, Fire and Building Brick Works, and a dozen or more other enterprises.

## \$18,500,000

### Already Invested in the Development of Middlesborough.

Since the above announcement was made, Mr. A. A. Arthur, the manager of the company, has returned from London, where he secured an additional **\$8,000,000** to be invested in Middlesborough enterprises.

The capital of the Water Works Company has been increased from \$200,000 to \$750,000.

The capital of the Electric Street Railway Company has been enlarged to \$250,000 and the proposed lines extended so as to cover all the principal streets.

The length of the Belt Railroad has been increased to 20 miles, and the whole line will be in operation in a few weeks.

The money has also been secured for an extension of the Knoxville, Cumberland Gap & Louisville Railroad through the tunnel into Middlesborough. There is now under negotiation a lease of railway systems, of which the Knoxville, Cumberland Gap & Louisville road will form a link, giving Middlesborough trunk line connection with Chicago, Cincinnati, Louisville, Atlanta, Charleston, Savannah and Pensacola. Arrangements are also being made for direct connection between Cumberland Gap and some point on the Atlantic coast, and following this will be the establishment of a line of steamers between that point and Liverpool.

\$400,000 has been secured for the Middlesborough Coal and Iron Bank, which is now a regular department of the American Association's business.

The entire capital of the Cumberland Gap Park Company, \$1,800,000, has been secured in London. Contracts

have been let for the magnificent hotel, casino, sanitarium and other buildings

The Middlesborough Hotel Company's capital has been increased. The company is now making an addition to its present building at a cost of \$25,000. Contract has been let for new hotel with ball room, casino and all the attractions and appointments of a first-class house, to cost \$75,000.

Contract has just been made for a new office building for the American Association, to be of stone and to cost \$35,000. A new office building will also be put up for the Middlesborough Town Company, the material to be stone and brick.

The Ousiotto Building Company, with a capital of \$250,000; the Manchester Building Company \$200,000; the St. Helen's Building Company \$200,000, and the New South Building and Loan Company with \$100,000, have been organized.

The eminent engineer, Mr. George E. Waring, Jr., of Newport, R. I., has been given the superintendency of contracts for a system of sewerage for Middlesborough and for the continuation of the work of straightening the stream that flows through Middlesborough. These improvements will cost \$150,000.

Mr. Arthur completed plans for a residence town at Cumberland Gap in connection with the American Association's developments. The amount secured for this purpose was \$750,000. The laying out of these lands has been given to Mr. George E. Waring, Jr.

The Watts London Iron and Steel Syndicate will increase its capital to £1,500,000 (\$7,500,000) and build other industries in addition to those already announced. Of the two furnaces now building the first will blow in early next October, and the second in November. Two other furnaces will be let to contract January 1.

Parties from Manchester, London and Liverpool will attend the May auction sales at Middlesborough, and will come with \$500,000 to invest in Middlesborough lots. Other parties are coming to form subsidiary companies to operate at Middlesborough in addition to those enumerated above.

The Northern American Association has been formed with a capital of \$3,750,000 to develop 200,000 acres of Kentucky coal lands; also the Anglo-American Association, with capital of \$2,000,000, to develop 80,000 acres of Kentucky coal lands, and the Western American Association, with capital of \$3,000,000, to develop 150,000 acres of coal and iron lands in Tennessee.

Counting the new enterprises arranged for on this trip and the additions to the capital of such as had been already announced, Mr. Arthur has secured nearly \$8,000,000 to be invested at Cumberland Gap. This is **\$8,000,000 of new money to be added to the millions already invested.**

Thus the Amount of Capital now Invested in the Development of Middlesborough reaches

## \$26,500,000.

Besides this, the three coal and iron companies mentioned above, whose aggregate capital is **\$8,750,000**, are closely allied to the American Association and the Middlesborough Town Company, and their developments will be made to contribute to the growth of Middlesborough.

The history of the world does not show an instance of

such amazing development in so short a time, and on so sure and solid and permanent a foundation.

A year ago the population of the present site of Middlesborough did not exceed 50; to-day the town has a population exceeding 5,000. It is a conservative estimate to say that in three years 50,000 people will be living here.

## MIDDLESBOROUGH TOWN CO., Middlesborough, Ky.



# KIMBALL.

MARION COUNTY,

TENNESSEE.

## KIMBALL TOWN COMPANY.

**H. I. KIMBALL,**
**Vice-Prest. & Managing Director.**
**DIRECTORS.**

HON. LOGAN H. ROOTS, President of First National Bank, Little Rock.  
 CHARLES P. RICHARDSON, Capitalist, Chattanooga.  
 J. R. STEVENS, President First National Bank, Huntsville, Ala.  
 A. J. MORISON, Capitalist, London, England.  
 J. H. BRYANT, President Seattle Coal & Iron Co., New York.  
 GEO. COOK, President Hallet & Davis Piano Co., Boston, Mass.

HON. H. L. COCHRAN, Judge Probate Court, Fort Payne, Ala.  
 H. I. KIMBALL, Atlanta, Ga.

**OFFICERS.**

President, HON. LOGAN H. ROOTS.  
 Vice-President, C. P. RICHARDSON.  
 Second Vice-President and Managing Director, H. I. KIMBALL.  
 Treasurer, J. H. BRYANT.  
 Assistant Treasurer, ED. E. RICHARDSON.  
 Secretary W. E. DONALDSON.  
 Assistant Secretary, W. BROOKS COVELL.

**ATTORNEYS.**

W. E. DONALDSON, Kimball.  
 SHEPHERD, WATKINS & BATES, Chattanooga.

**ENGINEERS.**

Landscape Engineer, NATHAN G. BARRET.  
 Resident Engineer, W. J. KELLY.  
 Sewerage and Electrical Engineers, NIER, HARTFORD & MITCHELL.

Hon. SAM'L H. BUCK, Gen. Superintendent.

**OFFICES.**

Richardson Building, Chattanooga.  
 Union Trust Building, 80 Broadway, New York.  
 Company's Building, Kimball, Tenn.

**Kimball Offers**

Solid, practical inducements to manufacturers. First-class enterprises under good management will be guaranteed, one-half the cash required. Local taxes will be remitted for a term of years. Lowest freights and cheapest raw materials will be secured.

**Auxiliary Companies**

will be organized by the parent corporation for developing the wealth of the Sequachee Valley and for supplying the city with heat, light, water, power and transportation.

**A Mammoth Industrial Building**

will be erected by the Kimball Town Company, which will have power, light and heat, that will be supplied to manufacturers on the most liberal terms.

Ample provision made for religious and educational institutions.

**No Further Auction Sales**

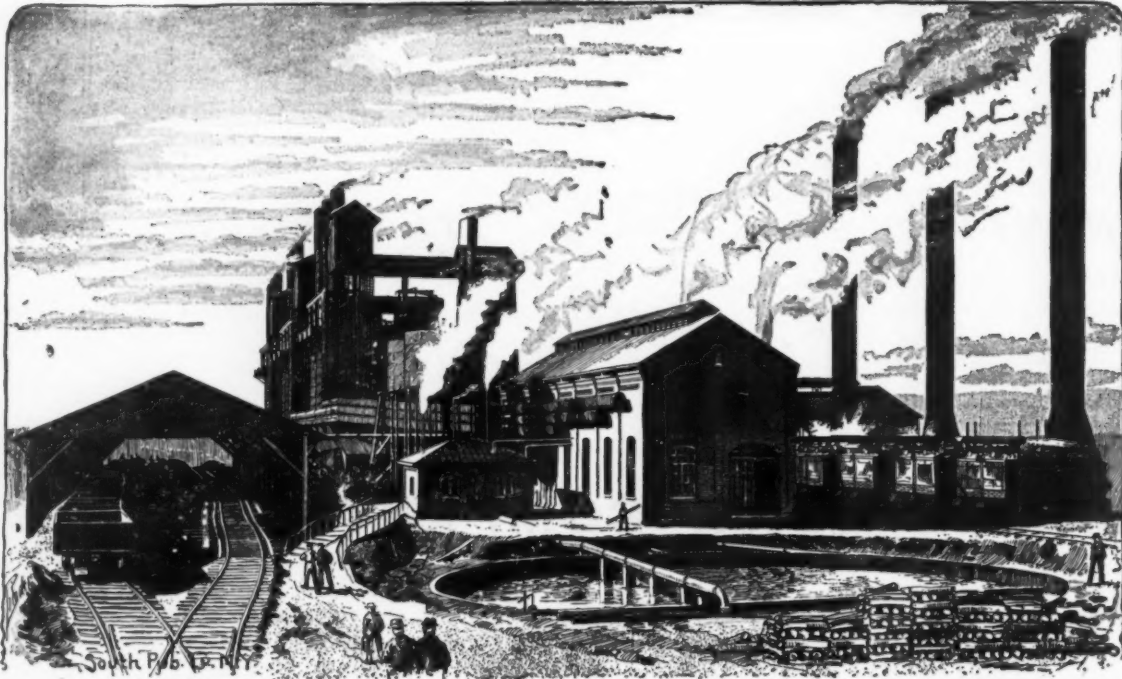
this year and no private sales of the corporation's lots except to those who will contract to build immediately on plans approved by the management.

ALL CORRESPONDENCE SHOULD BE ADDRESSED TO

**H. I. KIMBALL, Managing Director,**
**CHATTANOOGA, TENN.**

# SHEFFIELD, ALA.

## THE SUPREME.



At the Headwaters of Deep Navigation on the Tennessee River, the Hudson of the South.

The Largest Producer of HIGH-GRADE Pig Iron of any City in the Entire Industrial South.

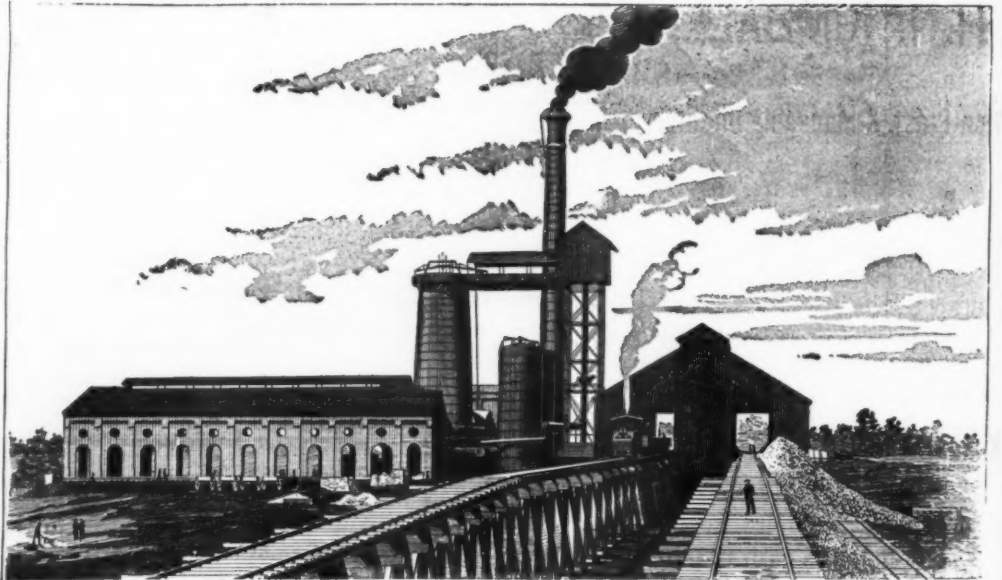
The only point in the South that has or can ship pig iron to the cities on the Mississippi, Missouri and Ohio rivers by boat or barge without rehandling. This last shipment of 5,000 tons of Pig Iron to Pittsburgh, Pa., by barge was made at a saving of \$2.65 per ton over what any iron-producing city of the South has done or can do to-day.

Five Large Blast Furnaces

Capacity 750 tons pig iron per day.

The following are among the corporate and private enterprises that belong to Sheffield:

The Sheffield Land, Iron & Coal Co., capital \$1,000,000.  
 The Sheffield & Birmingham Coal, Iron & Railroad Co., capital \$1,000,000; the owners of three 150-ton blast furnaces.  
 The Birm., Sheffield & Tenn. River Railway Co., capital \$5,000,000.  
 The Hattie Ensley Furnace, capital \$200,000.  
 The Lady Ensley Furnace Co., capital \$200,000.  
 The Electric Light & Gas Fuel Works, \$50,000.  
 The Sheffield Ice Co., capital \$25,000.  
 The Sheffield Manufacturing & Constructing Co., \$30,000.  
 The Sheffield Contracting Co., \$50,000.  
 The Eureka Brick & Lumber Co., \$30,000.  
 The Howard Brick Co.  
 The Sheffield Bakery & Bottling Works.  
 The Sheffield Mineral Paint Co., capital \$50,000.  
 The Sheffield Agricultural Works, capital \$40,000.  
 The Sheffield Cotton Compress Co., \$50,000.  
 Millan Brothers, Steam Laundry.  
 Enterprise Publishing Co.  
 Water Works, already expended, \$30,000.  
 Sheffield Street Railway Co., capital \$100,000.  
 Cleveland Hotel Co., capital \$50,000.  
 Sheffield Hotel Co., capital \$120,000.  
 Bank of Commerce, capital \$150,000.  
 East Sheffield Land Co., capital \$500,000.  
 Hull & Keller's Fern Quarries.  
 Mobile Real Estate Co., capital \$50,000.  
 Sheffield Real Estate Co., capital \$50,000.  
 Sheffield & Mobile Improvement Co., capital \$100,000.  
 Sheffield Stove Works.  
 Henderson Milling Co., capital \$100,000.  
 Globe Iron & Brass Works, capital \$10,000.  
 Standard Machine Shop & Foundry, capital \$50,000.  
 Owen Pink Mixture Co., capital \$100,000.  
 Bell Telephone & Telegraph Co.  
 Foulds' Shoe Factory, capital \$20,000.  
 Enterprise Wood Working Co., capital \$30,000.  
 Buchanan Straw Goods Factory, \$25,000.  
 The Sheffield Harness & Saddlery Co., capital \$20,000.  
 Principal Shops of the Sheffield & Birmingham Railroad.  
 Principal Shops Memphis & Charleston Railroad, now being built.



Aside from the foregoing the following are in course of construction and may be considered positive: Principal Shops of the Memphis & Charleston Railroad; Principal shops of the Nashville, Florence & Sheffield Division of the Louisville & Nashville Railroad. Reasonably certain to be secured in the near future are the following, in regard to which negotiations are pending: A Rolling Mill; Large Machine Shop; A Cotton Mill.

## ALABAMA'S IRON CITY.

The Superb Location at the head of navigation on the Tennessee River, commanding the outlet to immense fields of IRON ORE and COAL and magnificent tracts of the finest Timber. Has already attracted to the spot where three years ago in a cotton field her projectors set the stakes of a new city, capital and people, unequaled in amount and number, circumstances considered, by any of the so-called new cities of the South.

With eight Church Organizations, two Free Public Schools, Postoffice, Telegraph and Express offices and abundant facilities of transportation by river and rail. It has every advantage as a residence city that can be desired.

Good Water; Drainage Excellent; Health and Climate Unsurpassed. Free Public Schools and Churches. Splendid opening for men of push and energy. No better point for profitable investment. No "Old Foggy" element here.

### Sites for Manufacturing Enterprises

And for Free Public Schools and Churches

Donated by the Sheffield Land, Iron & Coal Company.

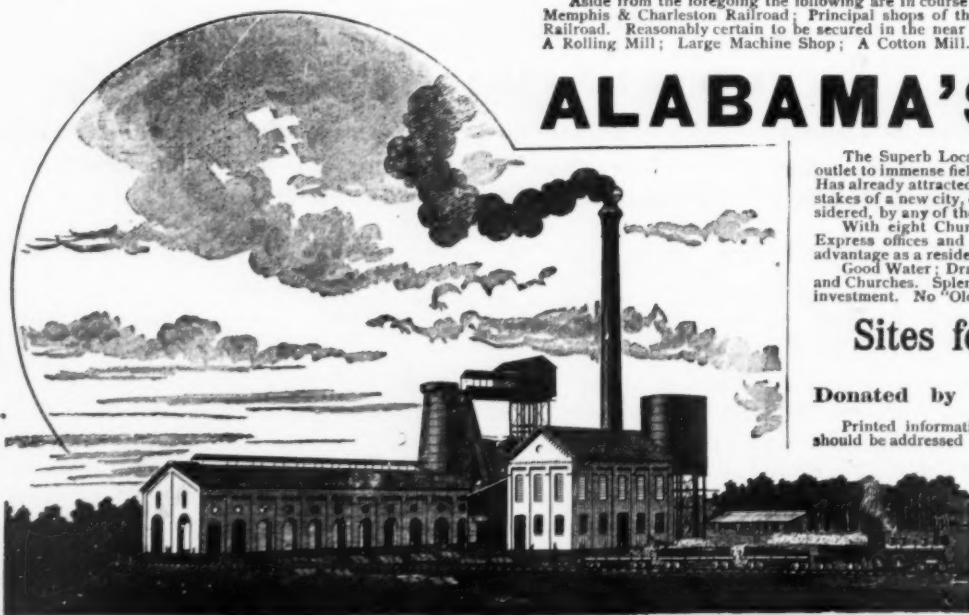
Printed information furnished on request. Correspondence solicited. Communications should be addressed

**W. L. CHAMBERS,**

Vice-President and Manager.

Sheffield Land, Iron & Coal Company,

SHEFFIELD, ALABAMA





# The Staunton Development Co.

## OF STAUNTON, VIRGINIA.

Authorized Capital \$2,000,000.

Shares \$100 par value each.

### OFFICERS

M. ERSKINE MILLER, President, Staunton, Va.

S. M. YOST, Vice-President, Staunton, Va.

W. P. TAMS, Treasurer, Staunton, Va.

W. J. PERRY, Secretary, Staunton, Va.

### DIRECTORS.

ISAAC WITZ, Staunton, Va.

B. F. EAKLE, Staunton, Va.

JOHN McQUAIDE, Staunton, Va.

ANDREW BOWLING, Staunton, Va.

S. M. YOST, Staunton, Va.

JED HOTCHKISS, Staunton, Va.

J. H. WAYT, Staunton, Va.

M. ERSKINE MILLER, Staunton, Va.

O. K. LAPHAM, Chicago, Ill.

H. H. FAY, Capitalist, 28 State Street,  
Boston, Mass.

W. L. FLEMING, Richmond, Va.

GEORGE H. HULL, President American

Pig Iron Storage Warrant Company, 44  
Wall Street, New York.

# STAUNTON, VIRGINIA.

The Queen City of the Valley of Virginia.  
Present Population 12,000.

Situated in Augusta county at the crossing of the Baltimore & Ohio and Chesapeake & Ohio railroads and accessible to the great coal and coke fields, namely: Connellsville, by the Baltimore & Ohio; Pocahontas or Flat Top by the Norfolk & Western and Chesapeake & Ohio, and New River Coke Fields by the Chesapeake & Ohio.

### PROPERTY.

The lands acquired, aggregating 2,242 acres, more or less, are favorably situated within the city limits and adjoining the corporation lines, and it might be fairly said that about 240 acres are situated within the city of Staunton. The great bulk of the property lies between the Valley Railroad or Baltimore & Ohio Railroad and the Chesapeake & Ohio Railway, and is most admirably situated for railroad switches and side tracks to reach manufacturing enterprises. Several streams of good water run through the lands, affording abundant water supply for factories and fine drainage.

### CAPITAL STOCK.

The authorized capital is two million dollars. One million, two hundred thousand dollars of stock will now be issued,

of which \$204,800 has been disposed of, leaving \$800,000 of stock in the treasury, to be hereafter issued, if it should be deemed wise to do so.

Subscribers will bear in mind that with every two shares of stock they will be entitled to either a business or residence lot, to be determined by a drawing at a date to be hereafter designated.

### BOOKS OF SUBSCRIPTION NOW OPEN.

Staunton is within six hours' ride from Washington, seven of Baltimore, nine of Philadelphia and eleven of New York.

It has an excellent system of water works, paid fire department, electric light and gas companies, ice factory, street car line under construction, four newspapers, handsome opera house, commercial college and other important industries that contribute to the welfare of the city.

# GLASGOW,

# VIRGINIA.

The Grandest Enterprise of the New South.

## THE LOCATION

is naturally fine and adapted to the construction of a large city.

## THE CLIMATE

guarantees immunity against epidemics.

## WATER-POWER

is practically unlimited.

## IRON ORE

in abundance and of fine quality.

## LIMESTONE

near at hand and plentiful.

## CEMENT

extensive deposits of good quality.

## GLASS SANDS

in large quantities and of high grade.

## TIMBER

of various kinds and abundant.

## FUEL SUPPLY

Pocahontas and New River Coke in convenient proximity.

## TRANSPORTATION FACILITIES

Two trunk lines—Norfolk & Western, with its Shenandoah Valley Railroad connection, and the Chesapeake & Ohio—giving direct communication with fields of finest Coaking and Steam Coals in the country, with deep water transportation with Norfolk & Newport News, with the West via Cincinnati.

## THE PITTSBURG & VIRGINIA R. R.

to be built in the near future will go through the Blue Ridge mountains at this point.

## FACILITIES FOR MANUFACTURING

unexcelled by those offered by any locality in the South.

## ADDRESS

# ROCKBRIDGE COMPANY,

Ex-Gov. FITZHUGH LEE,

President

Hon. WM. A. ANDERSON,

Vice-President.

M. M. MARTIN,

General Manager.



# DENISON, TEXAS.

The "QUEEN" City of the Southwest,

— AND —

\* GATEWAY \*

— TO THE —

## GREAT STATE OF TEXAS.

The City of Denison presents the Finest Opportunity of any City in the Southwest for the Investment of Capital in Large or Small Sums.

**D**ENISON is situated in Northeastern Texas near inexhaustible beds of coal and iron, surrounded by the finest fruit lands in the world, and adjoining the INDIAN TERRITORY, which, in the nature of things, must in a few years be opened to settlement.

The growth of Denison has been a natural one, the city having reached its present size—16,800 population—in sixteen years.

The city is regularly and beautifully laid out. Railroads run from it in four different directions. The Missouri, Kansas & Texas alone does an enormous business, having 54 miles of switch track in Denison, employing 500 skilled workmen and disbursing \$150,000 a month in wages.

The first public school in the State was established here, and the city's elegant two and three story brick school buildings, surrounded by attractive grounds, are well arranged for the use of the white and colored children. Its schools are in session ten months in each year.

We have sixteen church societies, seven of which are colored.

The city is well supplied with pure water from its numerous private wells—dug in the ground—and its first-class system of water works, giving the citizens ample protection against serious loss by fire, and enabling the insurance companies to rate the city first class as to fire hazard. Rate of taxation low.

The city has four miles of street railway, and a six-mile motor railway; has two electric light companies and a telephone plant. It has an influential New England colony, and counts among its citizens people from every State in the Union.

A large hotel, to cost \$125,000, is to be erected here this year, and a large steel plant with \$2,000,000 of capital is contemplated.

30,000 bales of cotton were shipped from Denison in 1889. 200,000 baskets of strawber-

ries and several carloads of peaches and other fruits have been shipped to market this season.

The Denison Canning Co., capitalized at \$100,000, has one of the largest canning factories in the country.

A cotton mill company with a capital of \$500,000 is building a 25,000-spindle cotton mill.

The climate of Denison is magnificent, situated nearly 800 feet above sea level. In summer it is warm, but far cooler than many cities farther North, and from 6 P. M. until after sunrise it is always cool. The city is very healthy.

The capacity of the ice factory has been increased from a daily output of 15 tons to 30.

The Denison Land & Investment Co. is prepared to give every reasonable encouragement to manufacturers, and solicit correspondence from such manufacturers as contemplate coming into the Southwest to locate.

Address all communications to

## THE DENISON LAND & INVESTMENT COMPANY, DENISON, TEXAS.

Paid-Up Capital, - - - - - \$1,200,000.

### OFFICERS:

W. P. RICE, President.

MILTON H. FRENCH, Vice-President.

B. J. DERBY, General Manager.

ARTHUR L. BERRY, Secretary and Treasurer.

### DIRECTORS:

W. P. RICE,  
J. M. FORD,  
SAM STAR,

Kansas City, Mo.  
Kansas City, Mo.  
Denison, Tex.

B. J. DERBY, Burlington, Vermont.  
ARTHUR L. BERRY, Denison, Tex.  
M. V. B. CHASE, Augusta, Maine.

MILTON H. FRENCH, Thomaston, Maine.  
B. C. MURRAY, Denison, Texas.  
JOS. B. LINCOLN, Boston, Mass.

# WAYNESBORO, VA.

## THE WAYNESBORO COMPANY.

### LOCATION

In the famed Shenandoah Valley. Perfect for every class of business and residence.

### CLIMATE AND HEALTH

All that could be desired. Free from rigor of North and enervation of the South. No epidemics. No malaria.

### ORES

Iron in inexhaustible quantity and fine quality. Manganese—largest mine in America near at hand, and every evidence of much undeveloped, making this the center of the manganese belt of the country.

### LIMESTONE

In massive beds close at hand and of best quality.

### TIMBER

Of every species and very abundant. Tan bark in large quantities.

### FUEL

Pocahuntas and New River coal and coke by short hauls.

### WATER SUPPLY

Unsurpassed. Pure freestone. Mineral Waters adjacent.

### HOTEL

To have every modern improvement and appointment and to cost \$25,000, will be let to contract within ten days.

### TRANSPORTATION

Two competing trunk lines—Norfolk & Western system to all points North and South, the Chesapeake & Ohio to the great West and deep water at Norfolk and Newport News—affording direct communication with the three great coking fields of America. A third railroad to be built, giving facilities over the B. & O. System.

### MANUFACTURING FACILITIES

Unexcelled by any locality in the South for profitable establishment of furnaces, steel plants, rolling mills, foundries, cotton mills, woolen mills, paper mills, tanneries, &c. Raw material for such industries abundant.

Special Inducements Offered to Parties Wishing to Locate Plants.

M. ERSKINE MILLER,

President.

T. H. ANTRIM,

Vice-President.

J. F. TEMPLETON,

Secretary and Treasurer.



# GRAHAM, VA.

~\*~ Tazewell County. ~\*~

## THE FAVORED SECTION.

### *The Graham Land & Improvement Company.*

#### OFFICERS.

A. C. DENNISTON, - - - - - President.  
EDWARD ILSLEY, - - - - - Vice-President.  
E. J. COLLINS, - - - - - Secretary and Treasurer.

#### DIRECTORS.

A. J. MAY, Tazewell C. H., Va. THOS. GRAHAM, Philadelphia Pa.  
C. M. CLARK, Philadelphia, Pa. J. B. GREEVER, Graham, Va.  
J. D. SERGEANT, Philadelphia, Pa. J. H. DINGEE, Philadelphia, Pa.  
A. C. DENNISTON, Philadelphia, Pa.

**R. K. WRIGHT, JR., Agent, Graham, Va.**

The Graham Land & Improvement Company has purchased about 900 acres of land, including the old town of Graham, at the junction of the Clinch Valley & Ohio extension of the Norfolk & Western railroad, in Tazewell county, Va., and has improved the property by laying it out in lots and streets. Several of the streets have been graded and macadamized. The work of macadamizing is being continued with great activity.

The land is so situated, being at the junction of two important branches of the Norfolk & Western Railroad, with the Bluestone river running through it, and in close proximity to the Pocahontas coal fields—the finest coking coal in the world—and the iron ore deposits of the Clinch Valley, that it will in a short period become an important iron manufacturing center as well as a distributing point for the entire coal field.

The Clinch Valley & Ohio extension of the Norfolk & Western Railroad runs through a section of country heavily covered with popular, white and chestnut oak timber, and it is believed that Graham, at the junction of these two branches, is a most desirable location for the establishment of saw mills, tanneries, pulp mills and other woodworking establishments.

The company proposes to donate sites to all worthy manufacturing enterprises, and stands ready to take a limited amount of their stock.

#### The Following Desirable Industries have been Already Secured:

○ The Graham Furnace Company, with a capital of \$250,000, has under construction an iron furnace, dimensions 16x70 feet, with a capacity of about 100 tons per day, and expects to be in blast by October.

The Virginia Lumber Company, with a capital of \$50,000, are erecting their buildings and will be in operation by the 1st of July.

Arrangements are also being made with parties who propose building at once a large general supply store and warehouse, building to cost about \$10,000, and having a working capital of not less than \$50,000.

The Graham Transparent Ice Company has been organized with a capital of \$50,000. Part of the machinery is now on the ground.

A large furniture factory has been organized with a capital of \$50,000.

Mr. Thomas B. Graham has secured a site on which he will erect a flouring mill with a capacity of thirty-five barrels, and expects to be in operation within sixty days.

The Graham Land & Improvement Company have made arrangements to supply the new town with water. The capacity may be extended to 2,500,000 gallons.

The Furnace Company has contracted to put in an electric-light plant for the purpose of lighting up their grounds, the Graham Inn and the commercial part of the city.

Work has been commenced by the Norfolk & Western Railroad Company on the building of a grand Union Passenger Depot at the junction and terminus of the Clinch Valley division, New River division and Ohio extension of the Norfolk & Western Railroad.

The Graham Land & Improvement Company are now building a fine hotel, which they hope to have ready for occupation by October 1st. The hotel will be heated by steam and lighted by electricity, and it is the aim of the company to make it one of the most attractive hotels in Virginia.

The Graham Publishing Company has been formed with a capital of \$12,000, all of which is subscribed.

#### Projected Enterprises:

Woolen mill, \$50,000.

Flour mill, 75 barrels capacity, \$35,000.

A muck bar rolling mill company with a large capital.

On the 10th of April, 1890, the Graham Land & Improvement Company sold at auction \$165,000 worth of business and resident lots. During the same day the private sales were large, making a total of \$210,000.

Lots are comparatively very cheap at current prices.

Capital stock \$250,000, one hundred dollars per share. Present worth one hundred and fifty dollars per share and none to be had.

# \* LURAY, \* Virginia. \*

2,500 Acres Town Lands,

8,000 Acres Mineral Lands,

Luray Inn and Caverns.

## The Valley Land & Improvement Company,

Capital Stock, \$2,000,000.

Luray, Page County, Va.

### DIRECTORS.

D. F. KAGEY, Luray, Va., President.	G. C. MARSHALL, Unlontown, Pa., Vice-President and General Manager.
T. E. McCORKLE, Lexington, Va.	DR. W. L. HUDSON, Luray, Va.
DR. A. M. HENKEL, Staunton, Va.	G. K. MULLIN, Philadelphia, Pa.
	J. W. MILLER, Mount Jackson, Va.

### EXECUTIVE COMMITTEE.

D. F. KAGEY,	G. C. MARSHALL,	T. E. McCORKLE,	G. K. MULLIN.
Secretary, T. E. McCORKLE.	Treasurer, H. M. KERR, Kagey & Co.'s Bank.	Attorney, T. E. McCORKLE.	
Associate Counsel, H. J. SMOOT,	Manager of Inn and Caverns, G. K. MULLIN.		
Bankers, D. F. KAGEY & CO., Luray, Va.			

### CHARTER, PROPERTIES, &c.

The Valley Land & Improvement Company has been organized under the most liberal charter ever granted by the State of Virginia.

2,500 acres for manufacturing purposes and building sites. These lands are in and around the hotel, caverns and town of Luray on an undulating plateau, protected on either side by the Massanutten Mountain and the Blue Ridge Mountains.

8,000 acres of the best mineral properties in Virginia, consisting of iron, manganese and other valuable minerals which have stood the test of examination by the ablest geologists of the country.

The company owns the celebrated Luray Inn and the Luray Caverns.

Page County stands at the head of the list as having a greater variety of minerals and richer than any other county so far as known in the State.

In addition we have the finest kind and a great variety of virgin timber and fire-clays, slates, beautiful marbles, ochres, umber and mineral paints.

### LOCATION, RAILROADS, &c.

Luray, now a town of about 2,500, is the county seat of Page county, has five churches, splendid schools, fine stores, three newspapers, flouring mill, cigar factory, &c.

The town is on the Shenandoah Valley Railroad, of the Norfolk & Western system, and is the best location in Virginia, four hours from tidewater.

Two new lines projected connecting closely with Baltimore and Washington and insuring cheap freights.

Luray has largest tannery in the world, annual pay roll over \$350,000.

Inexhaustible water supply, agricultural resources, charming climate.

Fine natural sites for furnaces and manufactories of all kinds fronting the railroad, reserved by the company, which by donations of land and in every possible way will promote Luray's manufacturing interests.

### LOTS, CAPITAL STOCK, &c.

Capital stock \$2,000,000, shares \$100.

One million of stock reserved in treasury for betterment.

One million now offered for sale.

Books open at the bank of D. F. Kagey & Co., Luray, Va.

The company reserves the right to close the books any time before the full amount of the one million is sold.

Twenty per cent. must be paid on subscription, 20 per cent in 30 days, the balance equally in six and twelve months.

When half of the subscription is paid in subscribers have the right to use their stock in payment on lot purchases.

The company feels safe in saying that with the magnificent property in hand, the Inn and Caverns, it will be enabled when thoroughly under way to pay four or five per cent. dividend on the stock sold, independent of lots and mineral lands.

The company already owns an electric plant which will be considerably enlarged.

Complete system of water works and many other improvements projected. Investors are referred to Mr. J. W. Wheeler, Cashier Drivers and Mechanics' National Bank, Baltimore, Md., for full information. H. C. Turnbull, Jr., real estate agent, 52 Lexington street, will receive subscriptions of stock in Baltimore.

The fullest investigation invited.

THE VALLEY LAND & IMPROVEMENT COMPANY, LURAY, PAGE COUNTY, VA.





**Buy the Best Stock on  
Sale in Virginia.**

**The Grottoes Company**

owns 25,000 acres of the best Iron and Timber lands, and 5 000 acres of unsurpassed City Site lands, or 30,000 acres all in one body, including the famous Weyer and Fountain Caves, the noted Grottoes Hotel, a large Electric Light Plant, two good Water Powers, twenty-five Brick and Frame Houses, a thousand acres of native forests in parks, etc., etc. It now offers 15,000 Shares of its stock (par value \$100 at \$50 per share. The buyer of 5 shares of stock will be allotted a good city lot, not less than 25x120 feet in size, without charge; and the buyer of 25 shares of stock will be allotted 5 city lots and one villa lot without charge.

Go and see the property, where the City of Shendun is now being laid out, at The Grottoes, Shenandoah Valley Railroad, Augusta and Rockingham counties, Va., and you will agree that *nothing yet offered compares with it in intrinsic value.*

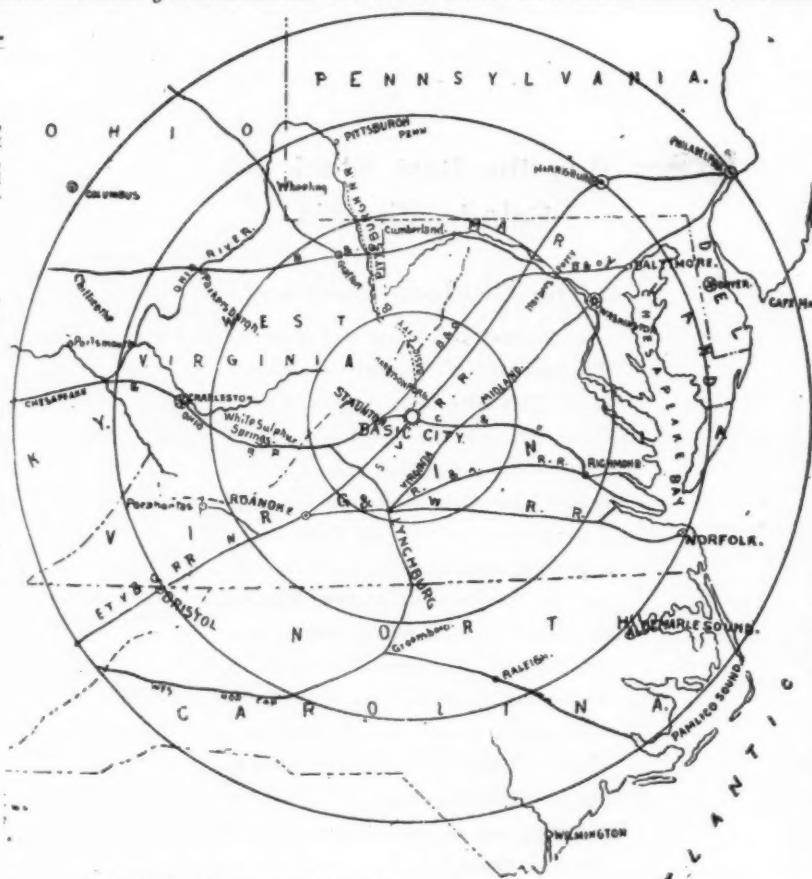
For prospectus, maps and information, address The Grottoes Company, Staunton, Va., or The Grottoes, Va.

**Jed. Hotchkiss, President,  
Staunton, Va.**

**For Immediate Use at**

The company is offering *Extraordinary Inducements* for the removal and Establishment of **MANUFACTURING PLANTS**.

Of almost every variety and plentiful.




**A Normal College with accommo-**  
**dations for 200 students.**

50 MILES BETWEEN CIRCLES

HOTEL AT BASCO CITY, VA.  
 A. H. B. & SONS, ARCHT'S & BLDG. CO.

FOR PARTICULARS AS TO THE SPECIAL ADVANTAGES OF BASIC CITY ADDRESS

 Information as to the financial standing and resources of this Company may be had by addressing the AUGUSTA NATIONAL BANK or the NATIONAL VALLEY BANK, of Staunton, Va.



## EDMONDS & ROBINSON,

In the development of its agricultural, mineral and timber resources; in its general upbuilding and advancement, Texas is making more rapid progress than any other State in the Union. Its population is increasing at a stupendous rate. Millions of dollars from the West and Northwest, from the New England States and from England are pouring into the State for investment in factories, mills, railroads and commercial enterprises.

San Antonio is the commercial and financial center of the great South and Southwest Texas. It is a city of 55,000 population, is the center of the most important railroads in the State, has four national and five private banks, building and loan associations, a large number of industrial establishments and some of the largest jobbing houses in the Southwestern States.

### LAWYERS

AND DEALERS IN

## REAL ESTATE

In the matter of homes it is the handsomest city in America.

In twelve years it has grown from 20,000 to 55,000.

It is growing more rapidly now than at any former period.

Property in and around San Antonio and throughout Southwest Texas is increasing in value every day. *It will never again be as cheap as it is now.*

There is no place in the world offering greater inducements for the purchase of real estate, either for investment or speculation, with assurance of such large and certain profits.

## SAN ANTONIO, TEXAS.

B. R. HUTCHKRAFT, Pres.

A. GATLIFF, Vice-Prest.

D. C. EAVES, Sec'y and Treas.

## THE SOUTHLAND INVESTMENT CO. REAL ESTATE, STOCK & BOND BROKERS

Room 45 Deaderick Building.

P. O. Drawer 6.

KNOXVILLE, TENN.

### OUR BUSINESS.

We Buy and Sell on Commission Real Estate, Stocks and Bonds.

Organize Companies to handle Mineral and Timber Lands

Report upon Costs of Mine Equipments, including Tramways and Railways. Maps and Profiles Furnished. Reports upon Value of Lands and Abstracts of Titles Furnished.

Act as Agents for Local and Non-resident Property-holders to Collect Rents and Sell Property.

Come and see us: if we do not have what you want we will get it for you.

List your property with us

## JOHN C. FIELD, REAL ESTATE, TREDEGAR, ALA.

Information cheerfully given relative to the proposed improvements to be made in Tredegar, Ala., a town with accomplished realities and not possibilities only. I can offer some property during the summer months at a minimum figure, when considering the certain enhancement of values that is sure to follow. A steel plant, giving employment to 3,000 hands, is assured. This plant alone, when taken with the present established population of 2,500, represents a city in excess of 10,000 souls. Other industries of equal importance are guaranteed in addition. Address

JOHN C. FIELD, Tredegar, P. O. Jacksonville, Calhoun Co., Alabama.

"The MANUFACTURERS' RECORD is the Most Widely-Quoted Industrial Paper in the World."

## BEDFORD CITY, VA.

(FORMERLY LIBERTY.)

The Most Beautiful Residence Portion of this Growing City is

## LONGWOOD PARK,

The Property of the Longwood Land & Improvement Co.

The property is within five minutes' walk of the N. & W. R. R. depot. It is intersected by broad, oak-shaded avenues, and divided into building lots averaging ninety feet front by 230 feet deep. A superb view of the beautiful Peaks of Otte visible from every part of the property. Prices range from \$6 to \$12 per front foot, according to location, &c.

**No Better Investment can be made than in Lots in Longwood Park, at these Prices.**

THE CITY HAS AN ESTABLISHED SOCIETY.

Churches, Schools and Academies, (among them the finest in the South,) Manufactures of many kinds, a magnificent supply of Free-stone Water, systems of Arc and Incandescent Electric Lighting, admirable Railroad Connections, a surrounding country of unlimited Mineral Resources and Great Fertility. For further information apply to

**R. KENNA CAMPBELL, Gen. Manager**

**The Longwood Land & Improvement Company.**

# CARDIFF.

## The Cardiff Coal & Iron Company,

**CARDIFF, TENNESSEE.**

Capital, \$5,000,000.

Fifty Thousand Shares—Par \$100.

(CHARTERED BY THE STATE OF TENNESSEE.)

### PRESIDENT.

B. B. SMALLEY, BURLINGTON, VT., President of the Ogdensburg & Lake Champlain Railroad Company.

### VICE-PRESIDENTS.

W. P. RICE, FORT PAYNE, ALA.

HENRY C. YOUNG, CARDIFF, TENN., of Cordley & Co., Bankers, Boston, Mass.

GENERAL MANAGER, - - - M. M. DUNCAN.

### DIRECTORS.

THE PRESIDENT & VICE-PRESIDENTS, Ex Officio.

JOSHUA L. CHAMBERLAIN, NEW YORK CITY, N. Y., Ex-Governor of Maine and President of Bowdoin College; Ex-President of the Association of the Army of the Potomac.

WILLIAM WARNER, KANSAS CITY, MO., of Warner, Dean & Hagerman, Counsellors-at-Law; Ex-Member of Congress from Missouri, and Commander-in-Chief of the Grand Army of the Republic.

SAMUEL E. PINGREE, HARTFORD, VT., Ex-Governor of Vermont; Chairman of the Board of Railroad Commissioners of Vermont.

CHARLES L. JAMES, BOSTON, MASS., of James & Abbot, Lumber.

T. G. MONTAGUE, CHATTANOOGA, TENN., President of the First National Bank of Chattanooga; Director of the Roane Iron Co.

ROBERT PRITCHARD, CHATTANOOGA, TENN., of Pritchard, Sizer & Thomas, Counsellors-at-Law.

J. F. TARWATER, ROCKWOOD, TENN., of Tarwater & Brown, Iron Miners.

J. M. FORD, KANSAS CITY, MO., President of the Fort Payne, Ala., Furnace Co., and of the First National Bank of Denison, Texas.

CARLOS HEARD, BIDDEFORD, ME., Merchant.

JOHN M. WHIPPLE, CLAREMONT, N. H.

### FISCAL AGENTS IN THE NORTH.

CORDLEY & CO., BANKERS, 121 Devonshire Street, Boston, Mass.

### BANKERS IN THE SOUTH.

FIRST NATIONAL BANK OF CHATTANOOGA, TENN.

### TRANSFER AGENTS.

AMERICAN LOAN & TRUST COMPANY, BOSTON, MASS.

THE CARDIFF COAL & IRON COMPANY, at a public sale held April 22d to 24th sold over one million dollars' worth of business and residence property to investors, who will build on and improve the same at once. The prices were conservative and maintained within the limits of actual value. The proceeds of this sale, together with the sum to be contributed by the Cardiff Coal & Iron Company from the sale of its treasury stock, gives the management two million dollars, all of which will be expended in building up the town. The place does not exist that can approximate the inducements that this city now offers to every class of industry and manufacture.

**SITUATED IN A HEALTHY CLIMATE,**

**SUPPLIED WITH PURE WATER,**

**EXCELLENT TRANSPORTATION FACILITIES,**

**In the Heart of the Great Iron and Coal Belt of Tennessee,**

Surrounded by a rich agricultural community, with every class of business sustained by the demands of the country, Cardiff will furnish to the Manufacturer, the Merchant, the Banker, the Professional Man, the Farmer, the Miner, the Laborer all that reason demands.

**Financial Encouragement will be Given Every Class of Business.**

The Cardiff town site contains over 3,000 acres. The building of Cardiff is in charge of men of approved judgment and experience. The town will be developed by the erection of Iron Furnaces, Coke Ovens, Hotel, Water Works, Motor Line, Electric Lights, Manufacturing Plants, Public Buildings.



### OFFICERS.

**Executive and Finance Committee.**

**DIRECTORS.**

### LOCATION OF WORKS.

### LAND SALES.

The company will build at once two furnaces, one to make Bessemer iron and the other mill and foundry iron.

### ANALYSES OF ORES.

**THE CAPITAL STOCK OF THE COMPANY IS \$1,000,000.**

For particulars as to time of payment, &c., address the company at Greensboro, N. C.

# LAREDO, TEXAS.

## The Gateway to and from the Republic of Mexico

Is nature's grand outlet for the manufactured products of the United States and nature's grand inlet for the mineral and raw products of Mexico. For the cheap delivery of the raw material necessary for the successful operation of iron and all textile industries, Laredo holds a position unsurpassed, every material being found in the immediate neighborhood. The very foundations of the city are upon inexhaustible coal beds, now being rapidly developed. A glance at the map will show that there are no large cities within hundreds of miles of Laredo, and her favorable geographical location, being from 600 to 800 miles nearer the trade centers of both republics than any other frontier port, stamps her as the commercial entrepot between the United States and Mexico.

Laredo is becoming a most important manufacturing point,

having the following industries already located and in operation:

Woolen Mill.  
Wool Scouring Mill.  
Tannery.  
Boot and Shoe Factory.  
Ore Concentrating Works.  
Ore Sampling Works.  
Cotton Gin and Milling Works.  
Mineral Water Bottling Works.  
Four Ice Factories.  
General Car and Machine Shops of the Mexican National Railroad, the largest west of the Mississippi.  
Three Large Brick-yards and several smaller establishments.  
A large Cotton Factory is now being erected by a New England syndicate.

Laredo Offers to the Capitalist, Merchant, Manufacturer and Mechanic  
Opportunities for Investment, Business or Manufacturing such  
as no other City in the Southwest can offer.

The city is well supplied with railroad facilities and hotel accommodations, has Holly system of water works, two electric-light companies and one of the best equipped electric motor street railways in the United States.

### Population.

1886.....	3,000
1888.....	6,000
1889.....	12,000

### Imports and Exports.

1888.....	\$ 3,000,000
1889.....	10,543,000

*For Maps Pamphlets, Bird's Eye Views and Reliable Information of Laredo, address*

# THE LAREDO IMPROVEMENT CO.



# The Gem of the Mountains

## TACOMA,

Wise County, Virginia.

Situated Directly in the Center of the Beautiful Guests River Valley on the Line of the Clinch Valley Extension of the Norfolk & Western Railroad, midway between St. Paul on the East and Big Stone Gap on the West.

Four large veins of coal at its doors including the famous Imboden vein of superior

coking coal eight feet thick.

3,000,000 brick contracted for.

Water works being constructed. Streets being graded.

470 lots already sold.

The gateway to the growing Southwest.

A substantial and enduring city to be reared.

A number of industries secured. Manufacturing sites free.

**W. E. HARRIS, President,**

Big Stone Gap, Va.

**HARRIS & HARRIS, Special Agents,**

Tacoma, Va.

## BIG STONE GAP, VA.

"Nature has done for Big Stone Gap what Art, Aided by Millions, can do for no other City."

**EIGHT LAND, COAL, IRON and DEVELOPMENT COMPANIES**, whose capital aggregates millions of dollars, are aiding the railroads to develop this wonderfully rich Mineral, Coal and Timber Region, and to build here

## A MIGHTY CITY.

### LOCATION.

High, healthful, beautiful. Drainage perfect. Confluence of two swift-falling rivers.

### NATURAL ADVANTAGES.

The point in all the world where inexhaustible **COKE, IRON ORE, LIME-STONE** and **WATER**, of best quality, are closest together and easiest got, and where consequently Iron and Steel can be most cheaply made.

### TRANSPORTATION FACILITIES.

A natural pass-way at water-level in a great chain of mountains, it is of necessity the focal point for Railroads connecting the West with the seaboard, and the markets of the Northwest with the rich coal and iron fields of the Southeast. **FOUR RAILROADS**, one completed and three to be completed during the year. **FIVE MORE RAILROADS** being constructed, with Big Stone Gap as the ultimate terminus.

### DIVERSITY OF INDUSTRIES.

Easily secured. The **HEART** of the finest **COAL, IRON** and **TIMBER BELT** on the Continent. Marble, Building Stone, Building Brick, Fire Brick, Lime, Mineral Paints, Tanneries, Potteries, etc., etc.

### There are in Course of Construction at Big Stone Gap

Two one hundred-ton Iron Furnaces.  
An Electric Light and Power Plant by the Thomson-Houston Co., equal to any in the South.  
A Hotel second only to the Ponce De Leon.  
A Street Railway three miles long operated by steam.  
A Belt Line for manufacturing enterprises six miles long to be extended to eighteen.  
Two complete Lumber and Finishing plants.  
A complete all the year round Brick Plant  
A complete Telephone Exchange.  
A complete Steam Laundry.  
A Furniture Factory.  
A Terra Cotta and Sewer Pipe Company.  
A Union Depot which will equal any in the South.  
A Coke Plant modeled after the celebrated Connellsville plant building by the Virginia Coal & Iron Co., of which E. B. Leisenring (late president of the Connellsville Coal & Iron Co.) is president.  
This company will build coke ovens to meet any demand which may be made upon them.

**GRAND OPPORTUNITIES OFFERED** to Investors, Capitalists, Manufacturers, Mechanics, Laborers, Pleasure Seekers and Home Seekers.

**FOR INFORMATION IN DETAIL ADDRESS**

**BIG STONE GAP IMPROVEMENT CO. or Real Estate Exchange.**

ESTABLISHED 1853.

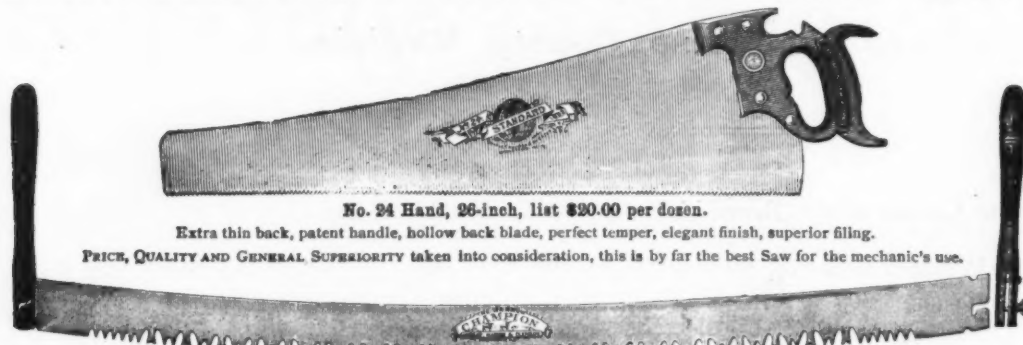
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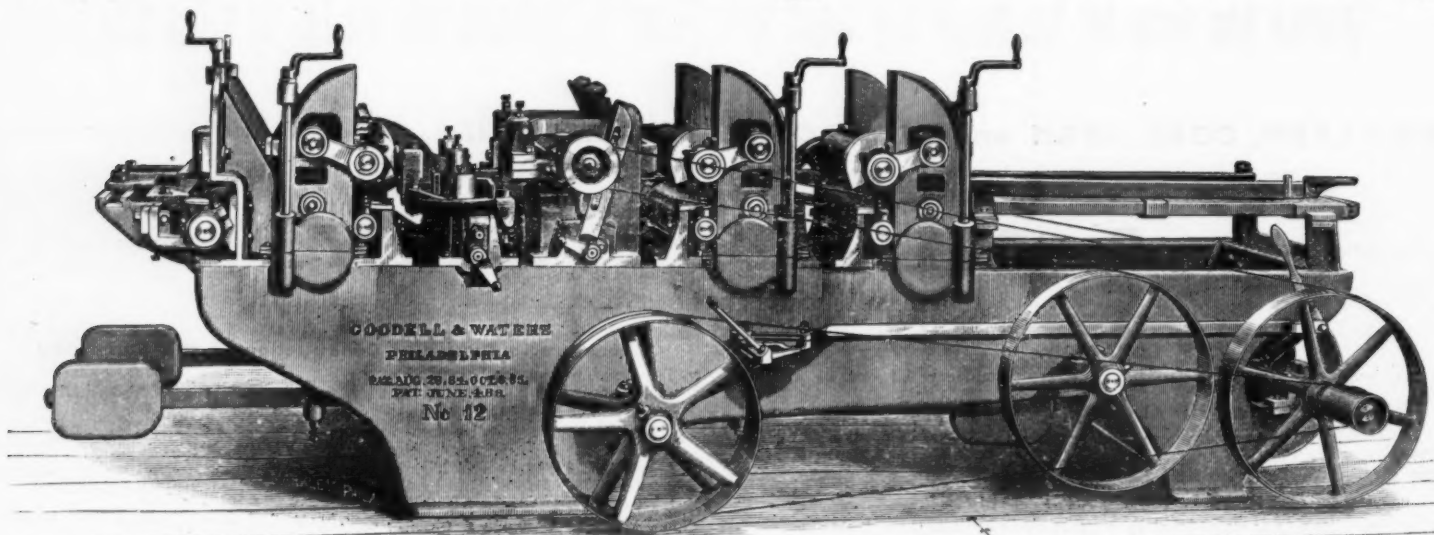
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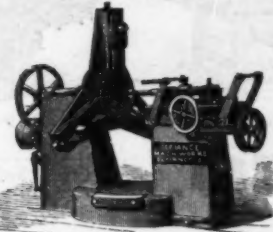
3002 Chestnut Street, Philadelphia, Pa.





Patent Automatic Combined Spoke, Turning and Squaring Machine for common, seven patent or sharp-edged spoke turning; capacity 3,500 per day

Established 1850.



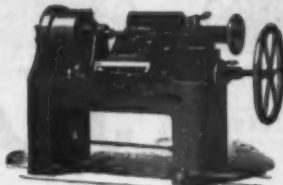
Wheel-Boxing Machine.

## Defiance Machine Works, DEFIANCE, OHIO.

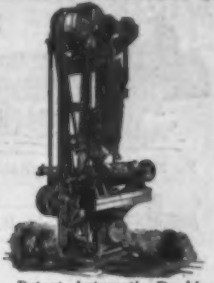
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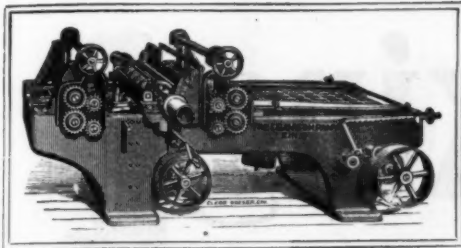


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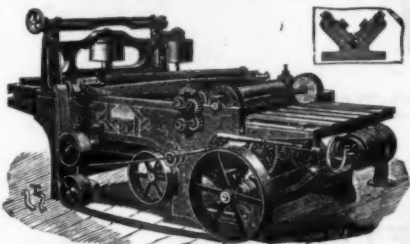
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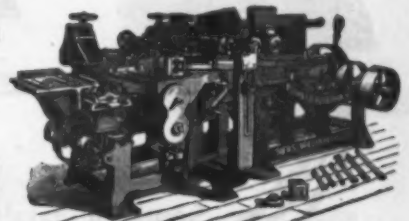
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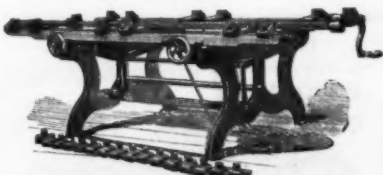
## Wood-Cutting Machinery

IN AMERICA.

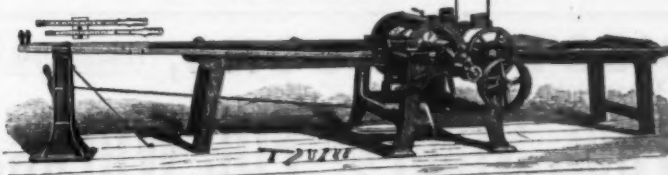
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Improved 4-inch and 6-inch Moulder



Patent Door and Blind Clamp, with or without Sash Attachment.



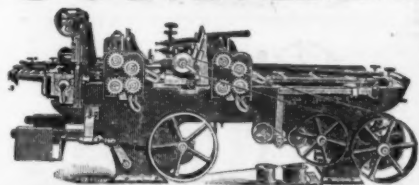
No. 2 New King Power Feed Gang Rip Saw.



Phillips Patent Sash Clamp.

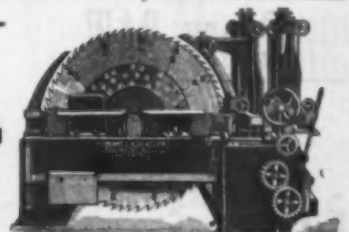
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MANUFACTURERS OF PATENT IMPROVED



## Wood Working Machinery, Planers, Matchers,

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SOLID PLATE AND SEGMENT RESAWS, BOX BOARD PRINTING PRESSES,  
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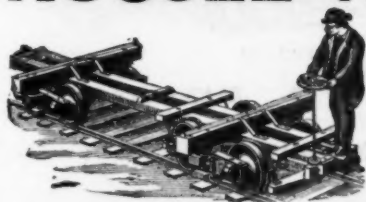


## RUSSEL WHEEL & FOUNDRY COMPANY,

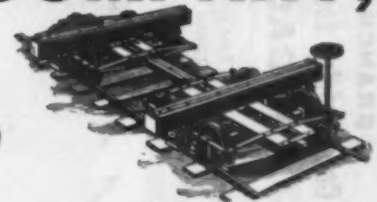
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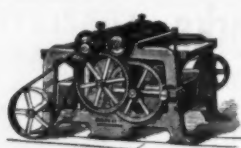
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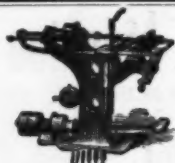
Self-feeding Reamers,  
Expanding Reamers,  
Shell Reamers,  
Stay-bolt Taps,  
Taper Reamers



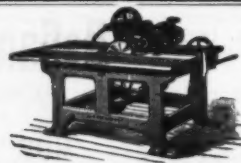
No. 2½—Pacific Planer and Matcher.



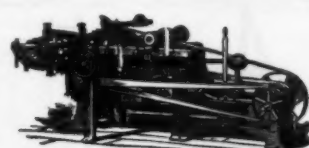
No. 4½—Smoothing Planer.



Horizontal Borer.



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No. 3—Molding Machine.

No. 2  
Fret Scroll Saw.

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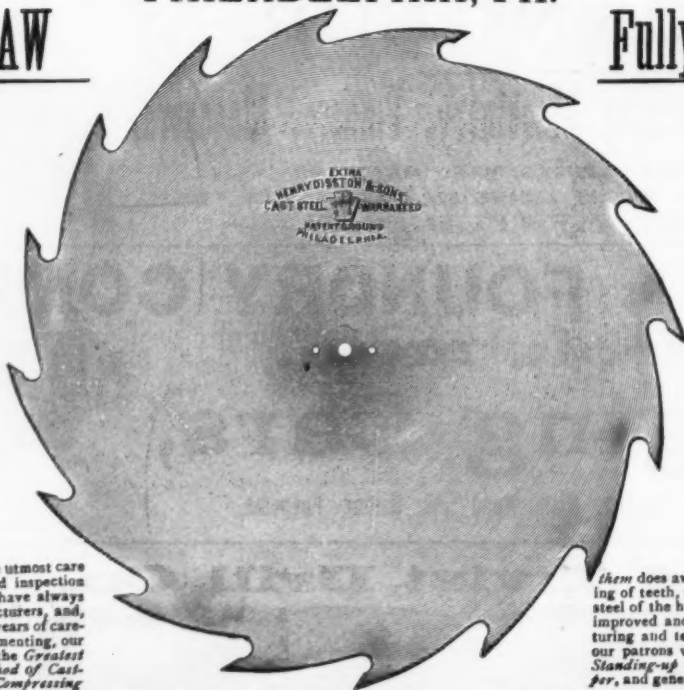
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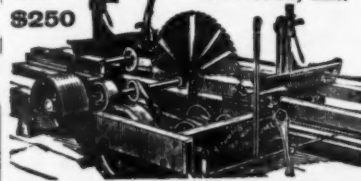
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ling of teeth, makes a hard, tough and elastic  
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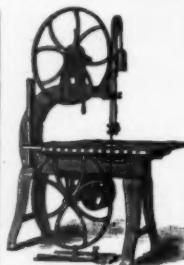
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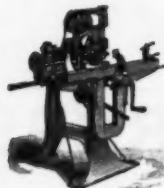
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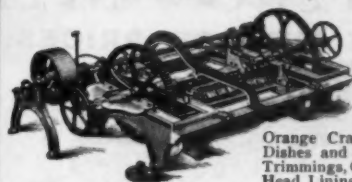
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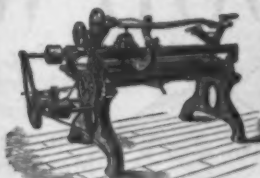


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For making veneer for Fruit Baskets, Berry Boxes, Orange Crates, Cheese Boxes, Butter Dishes and Tubs, Furniture and Car Trimmings, Chair Bottoms, Barrel Staves Head Linings, etc.

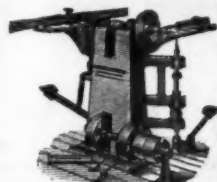
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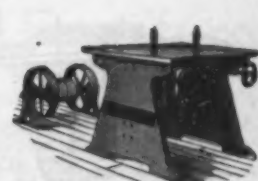
Blind Slat Tenoner.



Pin Making Machine.



Hand Saw.

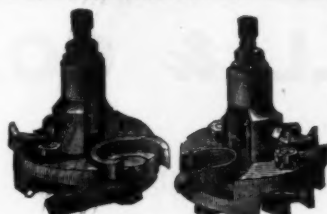


Double Spindle Shaper.

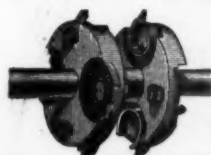
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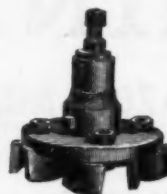
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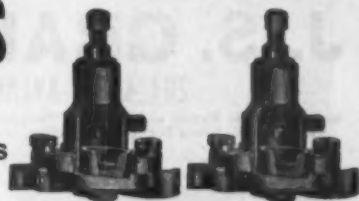


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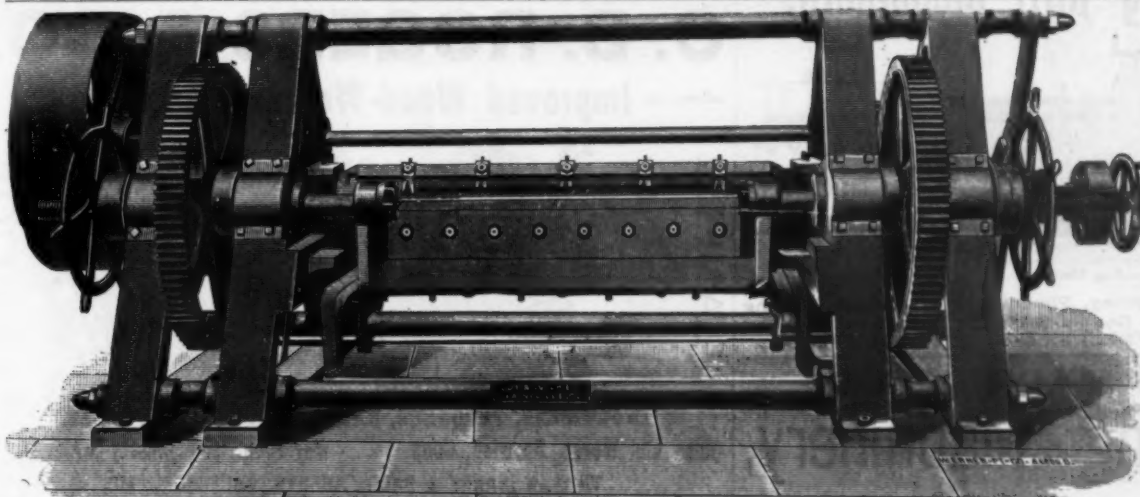
SHIP-LAP HEADS.



DOOR HEAD.



SASH HEAD.



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## **Veneer Machines**

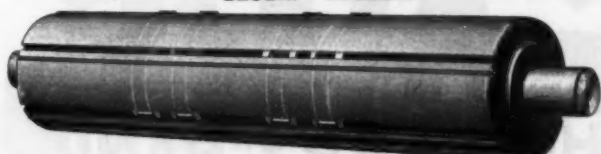
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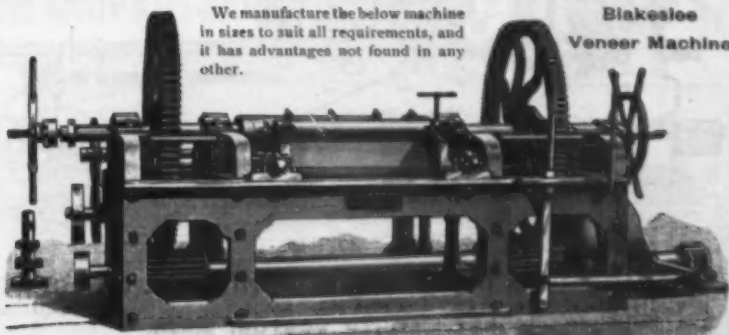
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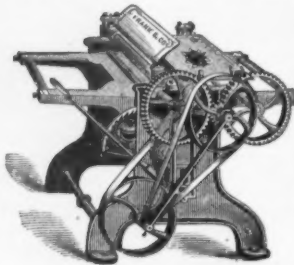
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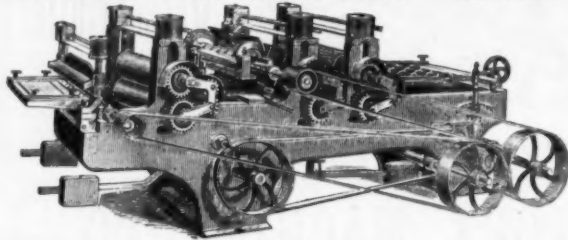


# WOOD-WORKING MACHINERY.

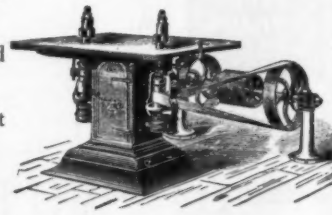


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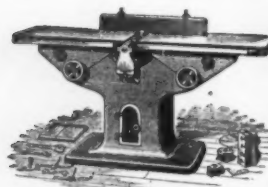
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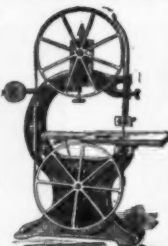
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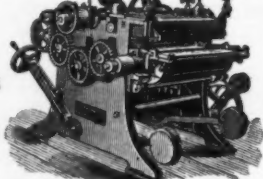
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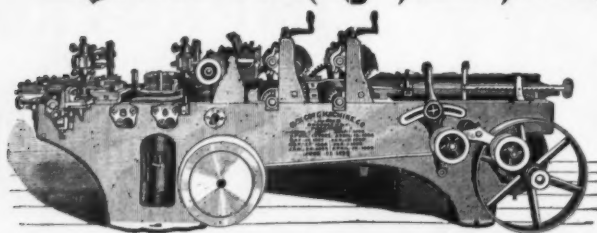
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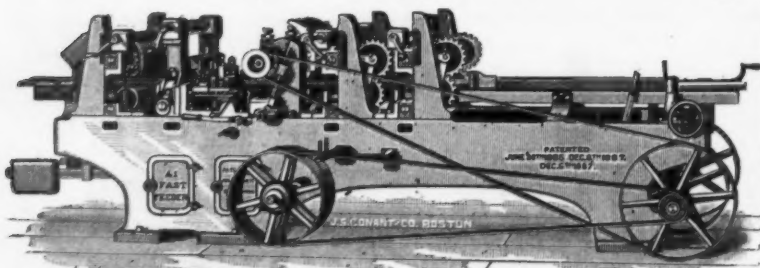


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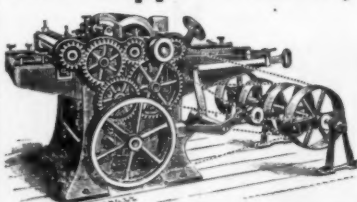
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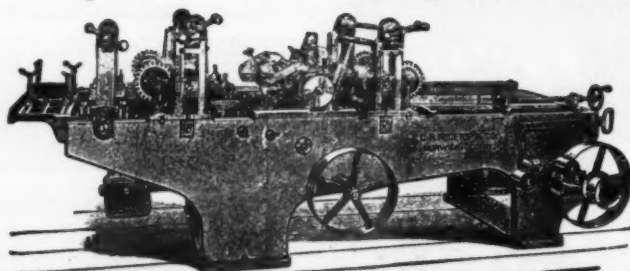
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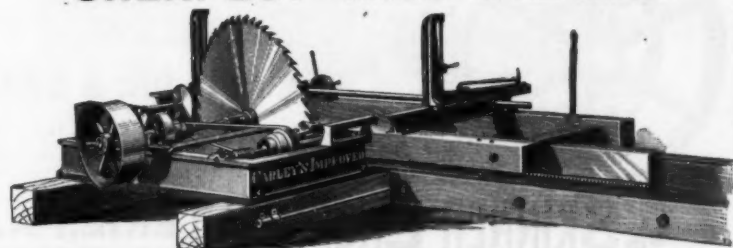
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HEADING TURNERS,  
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VENEER CUTTING MACHINES,  
STAVE EQUALIZERS,  
STAVE CUTTERS,  
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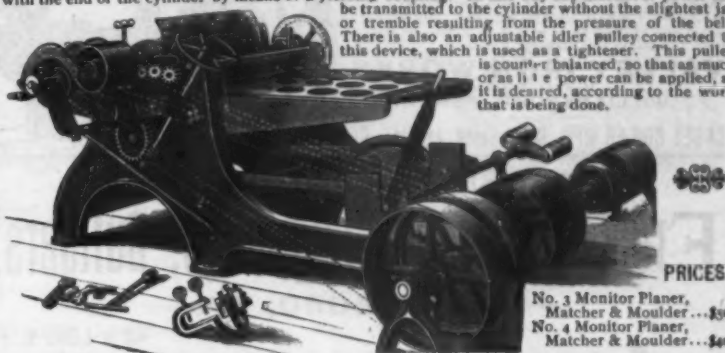
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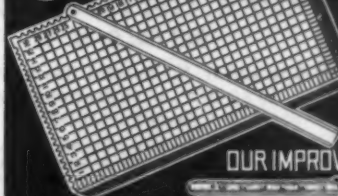
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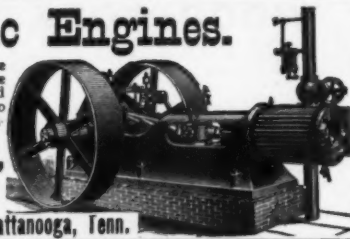
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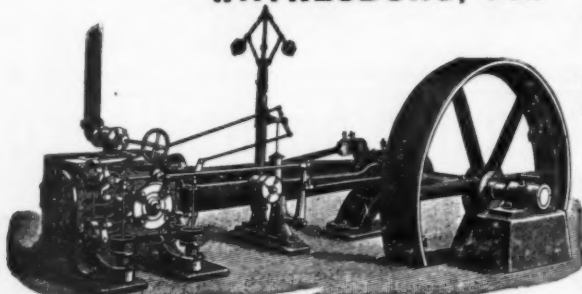
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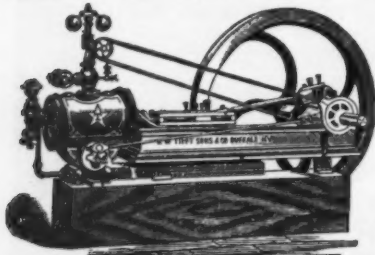
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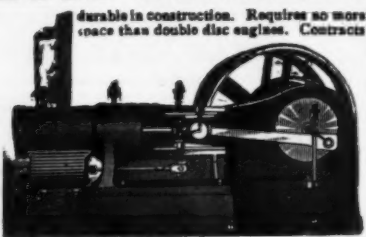
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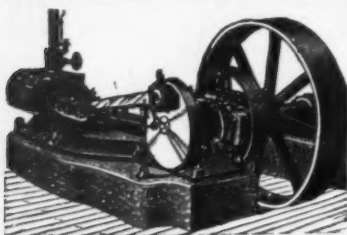
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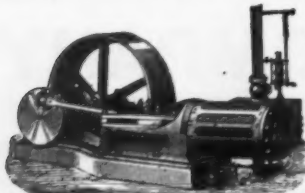
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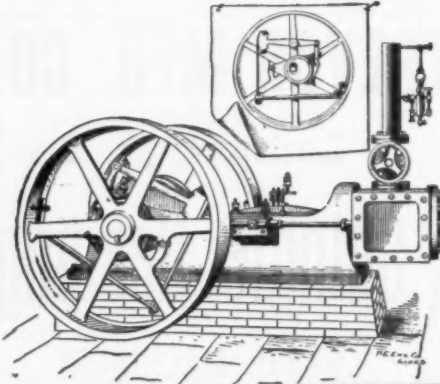


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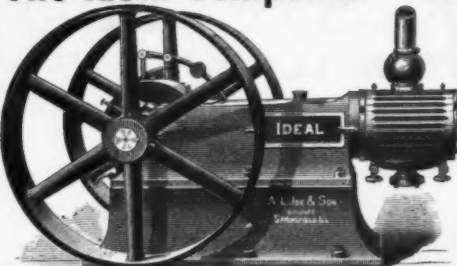
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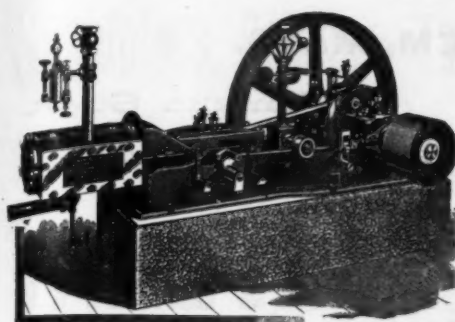
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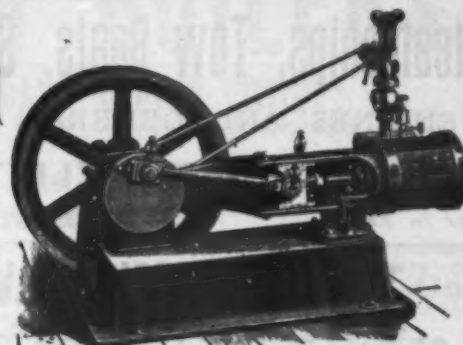
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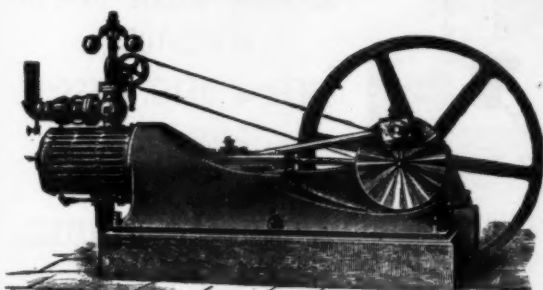
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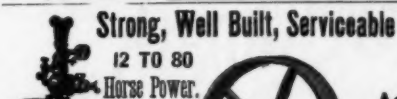
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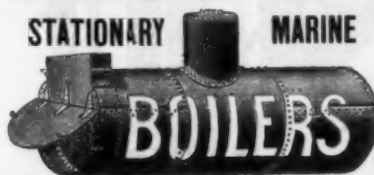
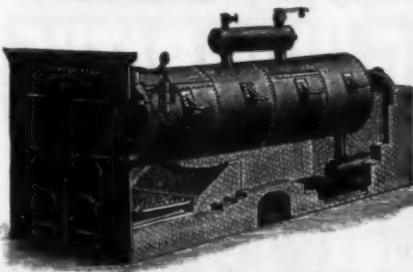
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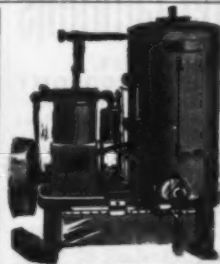
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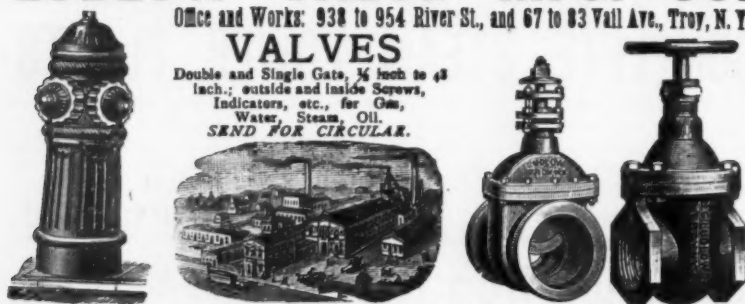
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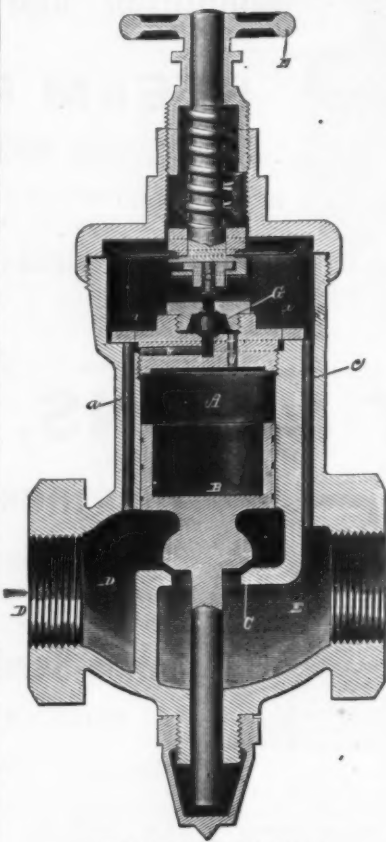
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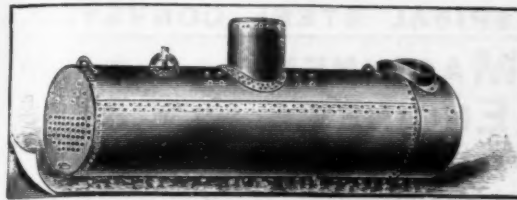
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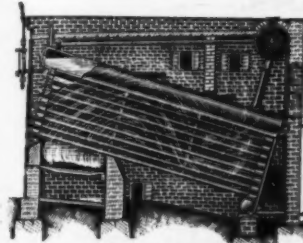
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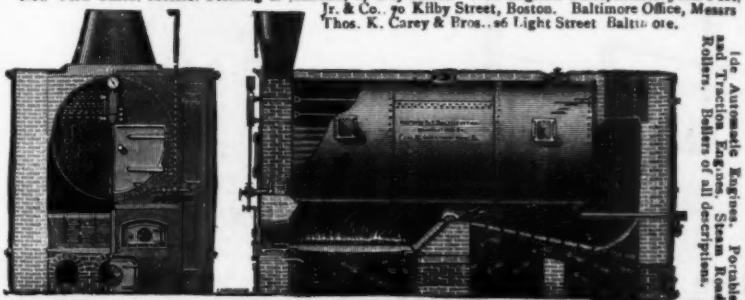
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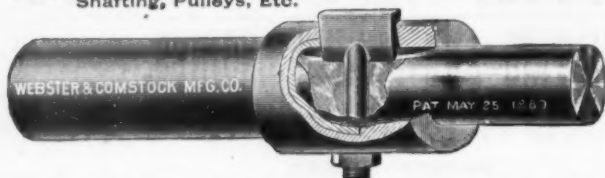
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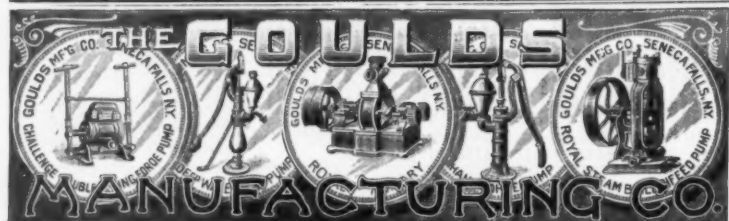
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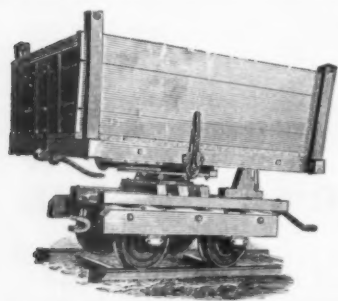
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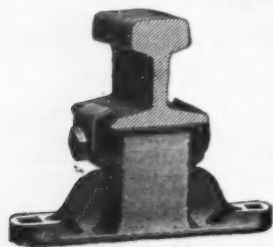
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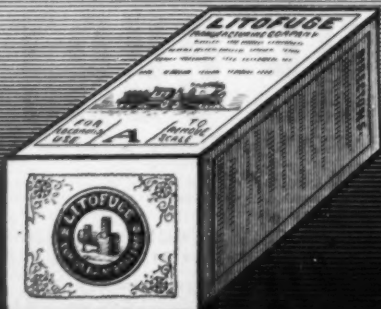
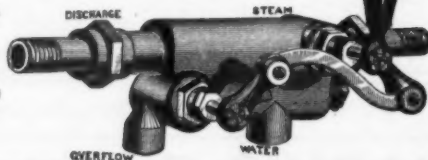
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# Southern Railroads.

It has been rumored that the Texas & Pacific Railway Co. is endeavoring to buy the Texas, Sabine Valley & Northwestern Railroad, and if it succeeded, the road would be extended immediately to Sabine Pass. The appearance of the general manager, John A. Grant, and Chief Engineer Trice, of the Texas & Pacific, at Carthage, Texas, the terminus of the line, in company with General Manager Evans and Road Master Richard Evans, of the Texas, Sabine Valley & Northwestern, gives color to the rumor. The road is now 38 miles long, extending from Longview Junction to Carthage, Texas. The projected line extends from Sabine lake to the Red river, a distance of 350 miles. The company was organized under the name of the Galveston, Sabine & St. Louis Railway Co. in December, 1882, and purchased in January, 1883, the Longview & Sabine Valley Railroad, extending from Longview Junction to Camden, 11 miles, which had been opened on April 11, 1878. In 1884 and 1885 the Galveston, Sabine & St. Louis Railroad Co. built 11 miles more, from Camden to Martin's creek. On January 15, 1886, the road and property were placed in the hands of a receiver, on application of the Galveston & St. Louis Construction Co. The road was sold under foreclosure May 8, 1888, and was purchased by C. M. Whitney, of New York, on behalf of the purchasing committee of the bonds. It was then reorganized under its present name on the March before the Texas Construction Co. completed the road to its present terminus at Carthage. Longview Junction, the commercial point of the Texas, Sabine Valley & Northwestern, has two other railroads—the Texas Pacific and the International & Great Northern.

THE first annual meeting of the Columbia, Newberry & Laurens Railroad Co. was held recently in Charleston, S. C. Mr. W. G. Childs, president of the company, read his annual report, which showed that 45 miles of the line from Columbia to Newberry had been completed by the Congaree Construction Co., and that a portion of the road had been examined by the railroad commission and accepted. The following board of directors were elected: James Woodrow, W. A. Clark, J. T. Sloan, Jr., M. A. Carlisle, C. J. Iredell, W. B. Lowrance, Godfrey Leaphart, H. C. Moseley, G. W. Mower and W. H. Lyles. The directors elected W. G. Childs, president; H. C. Moseley, vice-president; M. A. Carlisle, secretary and treasurer; C. J. Iredell, general manager, and James Woodrow, W. H. Lyles and W. A. Clark, finance committee.

THE Cape Fear & Cincinnati Railroad will, if built, prove to be of great importance to South Carolina. From a prospectus of the company the following information is taken: "The road is to run from Wilmington, N. C., south to Southport, N. C., thence westerly through heavy forests of yellow pine and other timber lands to Conway, S. C. Here the road diverges in three directions, the main line going southwest to Georgetown and Charleston, S. C. Another division will run north from Conway to Salisbury, N. C., via Marion, Bennettsville, Rockingham, Little Mills and Albemarle, and the third division will run from Conway northwest to Greenville, S. C., via Florence, Camden, Winnsboro and Union. The total length of the line is 485 miles. The company owns valuable terminal facilities at Southport, N. C., where it is proposed to erect warehouses, wharves, coal piers, cotton press, elevator, etc., so that grain and coal can be taken to Southport from the Northwest and loaded into vessels, the city of Southport being

situated at the mouth of the Cape Fear river and only five miles from the Atlantic ocean. The officers are: President, J. Wilson Brown, Baltimore, Md.; vice-president and general manager, George B. Morton, Baltimore; second vice-president, M. C. Guthrie, Southport, N. C.; secretary, J. H. Rowleson; treasurer, H. B. Bell." The Massachusetts Construction Co. has been recently organized to build this road, and has, it is said, as was stated several weeks ago, been awarded the contract for the division between Wilmington and Southport, 25 miles, and between Southport and Salisbury, N. C., 196 miles.

THE Baltimore & Ohio Railroad, whose constant improvements in its equipment is attracting considerable attention all over the country, and especially in that portion of the South included in the States of Virginia, West Virginia, Kentucky, Tennessee and North Carolina, has just had completed a number of the most beautiful and expensive parlor cars ever made. These cars are to form the train known as the Royal Blue Line, and are to run from Washington to New York via Philadelphia and Baltimore, thus furnishing unusually fine accommodation for the Southern traveler desiring to go North through the nation's capital. Five coaches, one combination coach and a baggage car are the first installment of the seventeen cars ordered from Pullman's Palace Car Co., of Chicago. The coaches are painted a rich glossy dark blue with silver trimmings, having the Maryland coat of arms and the words New York, Philadelphia, Baltimore and Washington painted on the outside, the former in rich coloring and the latter in silver. The interior is finished in polished mahogany with a roof of oak finished in silver. The coaches are each 60 feet in length—eight feet longer than the average—and have, together with the smoking apartment attached to each car, seating capacity for 70 passengers. There are also in each coach near the smoking apartment a retiring room for men, and at the other end one for ladies. The cars are heated by Baker's patent heater, which draws steam from the locomotive, which heats water and distributes through the coaches. Heavy tasseled curtains take the place of blinds. At each window there is also a cinder screen and deflector, adjustable and removable at pleasure. The coaches are lighted by gas, a sufficient supply of which is carried to burn continuously for 48 hours. All the cars are vestibuled, have the Pullman anti-telescoping arrangement and the Janney platform, also the Sessions automatic signal device, which connects with the locomotive by a tube extending under the coaches. The Royal Blue Line will probably go into operation immediately. Two Northern roads—the Reading and Central Railroad of New Jersey—have also had a number of coaches made similar to these.

## There Stands the South—Look at Her!

The best answer to fire-eaters in regard to Southern oppression may be found, like so much other interesting matter, by grubbing among the census figures for the last decade. Memphis increasing 123 per cent.; Dallas, 280 per cent.; San Antonio, 92 per cent.; Chattanooga, 650 per cent.; Birmingham, 270 per cent. Compare this with Boston in 1870 and Cincinnati 12 per cent. In addition to this the negroes have \$150,000,000 of property and 1,000,000 of children in the public schools. The silent forces of enterprise and civilization have been steadily building up the South to a glory surpassing the dreams of her proudest sons. And yet howling demagogues—North and South—would arrest and destroy this magnificent work to secure some wretched political advantage or satisfy some truculent, puny ambition.—New York Herald.

## Railroad Construction

Apalachicola, Fla.—Railroad Bridge.—J. N. Cook, chief engineer Augusta, Tallahassee & Gulf Railroad Co., previously referred to, will, it is reported, soon let contract for a bridge over the Ocklockonee river.

Asheville, N. C.—Railroad.—A. B. Fortune, of Abbeville, S. C., has secured contract, as reported last week, for constructing 10 miles of the French Broad Valley Railroad.

Atlanta, Ga.—Railroad.—The Western & Atlantic Railroad Co., lately referred to, will, it is stated, construct a number of side tracks between Atlanta and Chattanooga, Tenn.; also six new bridges.

Bartow, Fla.—Railroad.—The gauge of the Pemberton Ferry Branch of the South Florida Railroad (office, Sanford) is, it is stated, to be widened to standard gauge at once.

Birmingham, Ala.—Dummy Railroad.—Dunn Bros., who have contract for grading the Clifton & Jones Valley Dummy Railroad, previously referred to, have commenced work on same.

Cherry Run, W. Va.—Railroad.—The Potomac Valley Railroad Co., lately referred to, has been incorporated in West Virginia for the purpose of constructing a railroad from the West Virginia and Maryland State lines to Washington, D. C.

Clarksville, Tenn.—Railroad.—It is rumored that a new railroad is to be constructed through Clarksville. No particulars are publicly known, however.

Cuthbert, Ga.—Railroad.—Surveys for the projected Alabama, Georgia & Florida Railroad, lately mentioned, are said to have been completed from Cuthbert to Lumpkin.

Dyersburg, Tenn.—Railroad.—Dyersburg has decided by popular vote to subscribe \$35,000 to the Birmingham, Jackson & Kansas City Railroad Co. to secure the building of that road.

Elkins, W. Va.—Railroad.—The West Virginia Central & Pittsburgh Railway Co. (office, Baltimore, Md.) has completed the survey for the extension of its road, mentioned last week, to Beverly. It is expected that work will be commenced in the fall.

Ellisville Depot, Miss.—Tram-road.—Hough & Bennett will construct a tram road for hauling logs.\*

Gallatin, Tenn.—Railroad.—J. C. Rodemer & Co. have, it is stated, secured contract from the Middle & East Tennessee Central Railroad Co. for the completion of its road at once from Rogana to Hartsville.

Hot Springs, Ark.—Street Railroad.—It is rumored that the Hot Springs Street Railroad has been purchased by H. G. Allis and others, of the Capital Street Railway Co., Little Rock.

Humboldt, Tenn.—Street Railroad.—The Humboldt Street Railroad Co. will, it is stated, commence construction on its street railroad.

Huntsville, Ala.—Railroad.—The Nashville, Chattanooga & St. Louis Railroad Co. (office, Nashville, Tenn.) has, it is stated, let contract for the extension of the Tennessee & Coosa Valley Railroad, lately referred to.

Jackson, Tenn.—Railroad.—The city of Jackson has decided by popular vote to subscribe \$65,000 to the Birmingham, Jackson & Kansas City Railway Co., previously referred to.

Lampasas, Texas.—Railroad.—W. A. Disborough, general manager of the Lampasas & Southwestern Railway Co., will open bids on August 5 for furnishing rails, ties, equipment, etc., for the Lampasas & Southwestern Railway, projected to Llano via Burnet, a distance of 58 miles. The road is to be constructed this year.

Little Rock, Ark.—Electrical Railroad.—The Capital Street Railway Co., previously referred to, has secured permission to adopt electricity as motive power on its road, which is 15 miles long. The line will be extended about 15 miles further. H. G. Allis, of St. Louis, Mo.; George R. Brown, of Little Rock, and others are principally interested. Work is to be commenced at once.

Lynchburg, Va.—Railroad.—Surveys are being made, it is reported, for the connection between the Lynchburg & Durham Railroad and the Norfolk & Western Railroad (office, Roanoke).

Meridian, Miss.—Street Railroad.—The City Street Railroad Co. will, it is reported, commence surveys on its street railroad at once.

Mobile, Ala.—Railroad.—It is rumored that the East Tennessee, Virginia & Georgia Railway Co. (office, Knoxville, Tenn.) will construct an extension of its road to New Orleans, La.

Napoleonville, La.—Railroad.—The St. James & Assumption Railroad, recently reported as organized, is projected from Napoleonville to a connection with the Texas & Pacific Railway (office, Dallas, Texas). Joseph Maille, 166 Common street, New Orleans, can give information.

Pendleton, Ark.—Railroad.—Final location has been made on the Arkansas & Gulf Railroad, previously reported, projected to Lake Village, on the Louisiana State line, a distance of 85 miles. Contracts for construction will be let in October.

W. R. Bergholz, 15 Cortlandt street, New York city, is president.

Pikeville, Tenn.—Railroad.—Parleigh & Betts confirm the report of last week that they have contract for surveying the extension of the Nashville, Chattanooga & St. Louis Railroad (office, Nashville) to Owens Station via Tracy City.

Princeton, Ky.—Railroad.—It is rumored that the Ohio Valley Railroad Co. (office, Evansville, Ind.), previously referred to, will immediately extend its road to Nashville, Tenn.

Summertown, Tenn.—Railroad.—Surveys are reported as being made for a branch of the Nashville, Florence & Sheffield Railroad (office, Columbia, Tenn.), to be 11 miles in length and extend to the Napier Mining & Manufacturing Co.'s works.

Sylacauga, Ala.—Railroad.—Grading has been commenced on the extension of the Anniston & Atlantic Railroad (office, Anniston), lately referred to. Surveys have been about completed.

Tarpon Springs, Fla.—Railroad.—The Tarpon Springs & Tampa Railroad Co. has been incorporated by Jacob Disston, F. A. Davis, C. E. Sajo, of Philadelphia, Pa.; J. M. Vinson, of Tarpon Springs, and others, for the purpose of constructing a railroad from the mouth of the Anclote river to Tampa via Tarpon Springs; capital stock \$100,000.

Thomasville, N. C.—Railroad.—Surveys have been completed on the projected Thomasville, Silver Valley & Pee Dee Railroad, lately referred to.

Waco, Texas.—Electrical Railroad.—It is stated that the purchasers of the Waco Street Railway, lately referred to, will adopt electricity as motive power.

Waco, Texas.—Street Railroad.—The Citizens' Railway Co. has been chartered by George Clark, A. Rotan, of Waco, and H. C. Scott, J. H. Maxam and J. S. C. Bascom, of St. Louis, Mo.; capital stock \$350,000.

Weatherford, Texas.—Railroad.—Contract has been let, it is stated, to the Texas Tram & Lumber Co. for furnishing 75,000 ties to the Weatherford Mineral Wells & Northwestern Railroad Co.

## Basic City as an Illustration of Southern Progress.

The progress which is being made at Basic City, Va., should be a stimulus to every industrial town in the South. A year ago Basic City, then known as Waynesboro Junction, was simply a crossing point of two railroads, having only a small country eating-house and a railroad office to show in the way of improvements. Its advantageous location for an industrial town was pointed out in the MANUFACTURERS' RECORD last summer, and a few months afterwards some well known Staunton and Waynesboro business men united and organized several improvement companies to build up both Waynesboro proper and Waynesboro Junction, the name of the latter being changed to Basic City. They did not wait for outside capital or outside men to do the work. Local men, backed by local capital, commenced the building up of an industrial town, and where wheat and corn fields stood twelve months ago there are now a dozen or so enterprises, large and small, under active construction, and a number already in operation, while a live weekly paper finds liberal support. Basic City is one of the illustrations that the South is constantly giving of the vast possibilities of development when energy, sound judgment, integrity and capital are united in the building up of new towns. The MANUFACTURERS' RECORD congratulates the men who have made such a signal success of Basic City upon the work which they have done, and trusts that their example may be followed by many others.

## Manufacturing Interests at Dallas.

[Special Cor. MANUFACTURERS' RECORD.]

DALLAS, TEXAS, July 22, 1890.

From time to time reference has been made in a general way in this correspondence to manufacturing in Dallas, and it is now proposed to deal more minutely with that important branch of industry as it flourishes in this growing city of the Southwest. It will not be amiss at the outset to reiterate what has been said in reference to transportation facilities, fuel, water and raw material, all of which are required in producing finished forms. The railways of Dallas, which radiate in a dozen different directions, giving direct communication by water and by rail with the large market centers of the world, effectually dispose of the question of transportation. The unfathomed coal fields within fifty and seventy-five miles of Dallas insure a fuel first-class for manufacturing purposes which is laid down here at \$3.75 per ton, and as development progresses reductions in the price of coal will be announced from time to time. The Trinity river, with its numerous tributaries and a subterranean lake of water which may be tapped in any quantity thirty to fifty feet below the surface, furnish a supply of water which for quantity and quality will meet all demands. Texas produces in profusion almost everything found in a temperate climate. Her cotton is delivered fresh from the wagons which haul it to the gin. Here is wool of the finest quality, the supply of which is sufficient to meet all present demands, and would be largely increased with the advantages of a home market created by increasing the number of woolen mills. She furnishes hides for foreign tanneries and leather factories. Her rich iron deposits at Llano and New Birmingham may enter into the manufacture of everything for which iron and steel is used. Her timbered districts furnish a supply of the finest woods used in the manufacture of all kinds of implements and machinery, furniture and finishings. Hemp is here for the various uses to which it is adapted, and other fibres are produced to satisfaction. In fact, the field of raw material is all that could be desired.

Manufacturing in Dallas, although in infancy, comparatively speaking, has attained a degree of growth and success which ranks this industry with the chief and leading interests of this busy city. Dallas has cotton mills, awning factories, knit goods factory, buggy, wagon and carriage factory, soap and glue factories, mattress and spring bed factories, furniture factories, cigar factories, tinware factories, flour mills, shirt factories, clothing factories, pressed brick works, brewery, canning, preserving, pickling and bottling works, planing mills, ice factories, metal cornice works, broom factories, manufacturers of leather, cooperage works, candy factories, cotton-seed oil works, jewelry manufacturers, cotton gin machinery, and castings works, gas and electric light works, marble works, lithograph and blank book establishments and numerous other enterprises which, from small beginnings, have passed the experimental stage of their growth, have declared dividends, increased, and in some instances doubled, capacity, and are now on the broad highway of success. There are in Dallas, exclusive of shoe shops, tailors, bakeries, sign works, blacksmiths, etc., not less than 130 factories. A careful canvass, made by the county tax collector at the close of 1888 for the purpose of gathering statistics for the State Department, discovered then 109 manufacturing concerns in which \$2,682,800 capital was invested. These enterprises consumed over \$2,000,000 worth of raw material, \$194,000 worth of fuel and furnished employment to over 2,000 employees who received nearly \$1,000,000 in wages. The output was valued at \$3,723,300, represent-

ing, after deducting all expenses, an increase of 20 per cent. on the investment. The important enterprises established here since the beginning of the present year include a meat packing and refrigerator works, a paper mill, large buggy works, pressed brick works and novelty works. The new enterprises now about ready to begin operations include two cotton mills which will furnish employment to 200 people. One line of manufacturing opens up the way for another, and there is a great demand for other enterprises in Dallas. The product of Dallas factories finds a ready market throughout the State and in New and Old Mexico, Louisiana, Colorado, the Indian Territory and Arizona. This territory, with its constantly increasing demands, will sustain a large manufacturing center such as Dallas promises to be. There is a fine field here, and full particulars in regard to free sites, bonuses and other inducements held out to manufacturers may be obtained by addressing the Manufacturers' Aid & Improvement Co. at Dallas.

In the Construction Department of last week the sale of the Natural Bridge property in Virginia was noted. A syndicate of Northern and Virginia capitalists are the purchasers, and contemplate making the place one of the most magnificent summer and winter resorts in the country. The purchase included 1,000 acres of land east of the bridge, and embraces also the Appledore, Forrest Inn and the pavilion, with all the furnishings. Col. H. C. Parsons, one of the former owners, retains his private residence, the bridge and the original bridge tract. The syndicate intends to make extensive improvements at once involving an outlay of over half a million of dollars. The syndicate will erect a large handsome hotel of stone, and the plans indicate that it will be the most beautiful, in many respects, of any hotel in America. A large portion of the land is to be laid out in villa sites and a number of wealthy Northern men have expressed their determination to build there. The Natural Bridge property is situated very near the flourishing young industrial city of Glasgow, and several of the gentlemen interested in this new scheme are also allied with the Rockbridge Co. Natural Bridge is reached by the Shenandoah Valley and Chesapeake & Ohio Railways direct, and the Baltimore & Ohio by connection. The Natural Bridge Park Association, the new purchasers, pay \$200,000 for the property. The members of the association are Francis W. Breed, of Lynn, Mass., president, who is a member at large of the World's Fair Commission; J. R. Leeson, of Boston; Joseph Davis, of Lynn; L. H. Shields, of Norfolk, and Miles M. Martin, of Glasgow. Col. E. G. Peyton will, it is said, be general manager of the new hotel.

## Southern Financial News.

### NEW BANKS.

Chattanooga, Tenn.—The Chattanooga Warehouse & Banking Co., lately referred to, has a capital stock of \$1,000,000. S. J. Dunn is president, and J. R. Wallace, cashier.

Florence, Ala.—The Florence Loan & Trust Co. will probably be organized with a capital stock of \$100,000.

Fort Worth, Texas.—The W. C. Belcher Land Mortgage Co. has been authorized to increase its capital stock to \$300,000.

Griffin, Ga.—A bank to have a capital stock of \$100,000 is being agitated.

Guthrie, Ky.—It is reported a banking company is being organized with a capital stock of \$50,000.

Humboldt, Tenn.—It is reported a national bank will be organized with a capital stock of \$50,000.

Itasca, Texas.—R. P. Edgington has applied to the comptroller of the currency for the authority to organize the First National Bank of Itasca.

Knoxville, Tenn.—O. T. & John Poyntz, formerly of Orlando, Fla., and others intend organizing a bank with a capital stock of \$100,000.

Lynchburg, Va.—The Lynchburg Loan & Trust Co. has been organized with J. R. Gilliam, president, and J. T. Williams, secretary.

Middlesborough Ky.—The Bank of Middlesborough has been organized with a capital stock of \$50,000. J. P. Sandifer is president, and W. J. Kinuaird, cashier.

Sadieville, Ky.—The Bank of Sadieville has been organized with R. F. Pack, president, and T. J. Burgess, vice-president.

Stuart, Va.—A bank is being talked of.

Fort Payne, Ala.—The Alabama Sanitarium will hold a stockholders' meeting on August 16 for the purpose of considering the sale of the entire property or bonding the same.

Frederick, Md.—The First National Bank has declared a semi-annual dividend of 3 per cent.

Fulton, Ky., has decided to issue \$25,000 of water works bonds.

Greenville, Texas, will probably issue \$16,000 of bonds for school purposes.

The Frederick & Catocin Mountain Road Co., Frederick, Md., has declared a dividend of 2½ per cent., payable on and after August 12 at the Mechanics' National Bank, Frederick.

The Hernando Insurance Co., Memphis, Tenn., has declared a semi-annual dividend of 5 per cent.

The Home Insurance Co., Memphis, Tenn., has declared a dividend of 5 per cent.

The Real Estate & Building Association, Augusta, Ga., has declared a semi-annual dividend of \$3 00 per share.

Vicksburg, Miss.—The Vicksburg Cotton Press Association held a stockholders' meeting for the purpose of organizing the association, buying property and providing for the issuance of bonds for the association, secured by mortgage and deed of trust on its property.

Yorkville, S. C.—The Loan and Savings Bank has declared a semi-annual dividend of 7 per cent.

## Baltimore Stock Exchange Quotations.

Reported by ALEXANDER BROWN & SONS, Bankers, Baltimore.

BALTIMORE, July 30, 1890.

	BID.	ASKED.
Virginia 6's Consols C.....	34½	35
Virginia 3 4 5 10-40's.....	41½	42
Virginia 3's, new.....	68½	69
Ga. Car. & N. 5's.....	102½	103
Wil. & Wel. Gold 7's.....	113½	114½
Wil. & Wel. 5's.....	109½	110
Atlanta & Char. 1st 7's.....	121	122
Col. & Green 2d 6's.....	85½	86
Va. Midland, 2d 6's.....	116½	117
Va. Midland, 3d 5 6's.....	111	112
Va. Midland, 4th 2-4-5's.....	80½	81
Ga. Pacific, 5th 5's.....	103	103½
Charlotte, C. & Aug. 1st 7's.....	118	119
West Va. Central 1st 6's.....	109	109½
Ga. Pacific 1st 6's.....	112½	113
Ga. Pacific 2d 6's.....	78½	79
West. Nor. Car. Cons'd 6's, Gold.....	100½	101
Cape Fear & Y. Valley 6's, A.....	106	106½
Cape Fear & Y. Valley 6's, B.....	103	104
Cape Fear & Y. Valley 6's, C.....	104	104½

## Southern Securities

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## BONDS

Correspondence Solicited.

## N. W. Harris & Co. BANKERS,

163 & 165 Dearborn St., Chicago, 70 State St., Boston.

**PROPOSALS WANTED.**—Up to 12 o'clock August 30, 1890, proposals will be received for the erection of a new Courthouse in Spartanburg City, South Carolina. Proposals will be sealed and directed to Joseph M. Elford, county commissioners clerk, Spartanburg, South Carolina, marked Proposal for New Courthouse. Proposals will be for the furnishing of materials, except as modified herein and building the entire structure complete, according to plans and specifications. The right is reserved to reject any or all proposals and to waive formalities. The successful bidder will be required to give bond to the full amount of the contract, and to enter upon the work immediately after the perfection of contract, bond, &c. Payments will be made in cash as follows: 80 per cent. of the value of the work done and put in place in the building in an acceptable manner, as the work proceeds. Plans and specifications can be seen and all necessary information can be had at the office of the clerk of the county commissioners, Spartanburg, S. C., or McDonald & Bros., architects, Louisville, Kentucky. All information, or work, or materials indicated by the drawings and not shown in the specification or vice versa, will be performed as fully as if laid down in both. Should any parts of the drawings and specifications conflict with other parts, contractor will make report to the architect, and get instructions as how to proceed. Each contractor is expected to read over the entire specifications; this also applies to sub-contractors. By order of the Board of County Commissioners, held at Spartanburg July 28th, 1890.

CHAS. A. BARRY, Chairman of Board.  
Attest: JOSEPH M. ELFORD, Clerk of County Com'rs, Spartanburg, S. C.

## JOHN L. WILLIAMS & SON, BANKERS, RICHMOND, VA.

Our Manual of Investments for 1890, the largest work of the kind published by any banking house in America, (406 pages, octavo, cloth,) may be had without charge by clients, correspondents and those expecting to do business with us; by others at \$2 per copy.

## Richmond Stock Exchange Quotations.

Reported by JOHN L. WILLIAMS & SON, Bankers, Richmond.

RICHMOND, VA., July 29, 1890.

	BID.	ASKED.
North Carolina 4's, 1910.....	99½	101
North Carolina 6's, 1910.....	126	128
Virginia New 3's, 1932.....	68½	69
Danville 5's.....	100	103
Petersburg, Va., 5's, 1915.....	104	104½
Petersburg, Va., 5's, 1918.....	103½	104
Norfolk, Va., 5's, 1911.....	104	104½
Richmond, Va., 5's, 1922.....	110	114
Atlanta & Charlotte Ry., 1st 7's, 1907.....	121	122
Atlanta & Charlotte Gt'd 6's, 1900.....	105½	107
Char., Col. & Aug. R.R. Gen. 6's, 1932.....	105½	110
Georgia Pacific Ry. 1st 6's, 1922.....	111½	112½
Georgia Pacific 2d 5's, 1923.....	78½	79½
Ga. Pacific Incomes, 5's.....	24	27
Petersburg Railroad Class A 5's, 1926.....	104	110
Petersburg Railroad Class B 6's, 1926.....	106	110
Rich. & Danville R. R. Gold 6's, 1915.....	116	116
West. N. Car. R. R. Gt'd 6's, 1914.....	100	101
Northwestern N. Car. R. R. 1st 6's.....	100	103
Atlanta & Charlotte R. R. Stock.....	100	100
North Carolina Railroad Stock.....	103	103
R. F. & Pot. R.R. Div'd Obligations.....	113	114
Virginia Midland Railway Stock.....	53½	56
Sloss Iron & Steel Co. Stock.....	94	94
Sloss Iron & Steel Co. 1st 6's.....	94½	94
Sloss Iron & Steel Co. 2d 6's.....	94	94

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## SOUTHERN STOCKS.

## OFFICIAL QUOTATIONS BIRMINGHAM STOCK EXCHANGE.

Corrected Weekly by MARTIN & LEEDY, Stock and Bond Brokers, and Members  
Birmingham Stock Exchange.

SATURDAY, JULY 26, 1890.

STOCKS.		Capital	Par	LAST DIVIDEND.			
		Stock.	Value.	Declared.	Per Cent.	Bid.	Asked.
BANKS.		Organized.		on Stock.			
Alabama National	1886	\$500,000	100	July '90	a 4	116	
American National	1887	250,000	100	July '90	a 4	98	
Bank of Attalla	1889	50,000	100	July '90	a 5	55 1/2	
Berney National	1886	300,000	100	July '90	a 5	126	
Birmingham National	1887	250,000	100	July '90	a 3	95	
Central Savings	1889	5,000	100	July '90			
City National	1889	100,000	100	July '90		175	
First National	1884	250,000	100	July '90	a 6	180	
First National Bank of Gadsden	1887	50,000	100	July '90	a 6		
Jefferson County Savings	1885	150,000	100	July '90	a 6	145	
Birmingham Trust & Savings Co.	1887	500,000	100	July '90	a 3	166	
Mutual Loan & Trust Co.	1887	50,000	100	July '90		100	
People's Savings Bank & Trust Co.	1888	5,000	100	July '90	a 4	115	
RAILROADS.							
Birmingham Union Railway Co.	1887	1,000,000	50			25	
Birmingham & Easley Railway Co.	1887	500,000	50			25	
North Birmingham Street R. R.	1887	65,000	50			50	
Highland Avenue & Belt R. R. Co.	1887	1,000,000	100			45	
South & North Alabama R. R. Co.						25	32
MISCELLANEOUS.							
Avondale Land Co.	1884	150,000	100	Oct. '88	2		
Anniston City Land Co.	1887	3,000,000	100	July, '87	q 4	56	58
Alabama Coal & Iron Co.	1890	1,000,000	100				110
Alabama-Connelley's Coal & Coke Co.	1886	500,000	100				23
Alabama Rolling Mill Co.	1887	250,000	100				60
Bessemer Land Co.	1887	2,500,000	100	May, '87	q 2 1/2	31	
Birmingham Mining & Mfg. Co.	1887	150,000	100	Feb. '87	q 3 1/2	100	
Birmingham-Ensley Land Co.	1886	450,000	100			5	8
Birmingham Ice Factory	1886	85,000	100	July, '89	a 10	100	105
Birmingham Water Works Co.	1887	500,000	100				81
Birmingham Soap Works Co.	1886	50,000	100			22	30
Brooklyn Land Co.	1886	1,400,000	100				
Birmingham Furnace & Mfg. Co.	1886	1,500,000	100				16
Camille Gold Mining Co.	1887	1,500,000	10			1/2	
Cahaba Coal Mining Co.		1,400,000	100			15	25
Chattanooga East End Land Co.	1887	1,000,000	100				70
DeBardeleben Coal & Iron Co.		4,000,000	100				70
Decatur Land Imp. & Furnace Co.	1887	5,000,000	100			14 1/2	15
Decatur Mineral Land Co.	1887	350,000	100	Oct., '87	q 3	22 1/2	
Elyton Land Co.	1871	200,000	100	Nov 10, '87	a 4	750	
Edison Electric & Illuminating Co.	1886	100,000	100	July, '89	a 4		102
East Birmingham Land & R. R. Co.	1886	1,022,800	100			11	11 1/2
East Lake Land Co.	1886	200,000	100	June, '87	a 50		77
Ensley Land Co.	1886	10,000,000	100			9	
Enterprise Manufacturing Co.	1886	100,000	100			22 1/2	32 1/2
Eureka (Furnace) Co.						130	300
Florence Land & Mining Co.		3,000,000	100	April, '89	1	30	22
Gadsden Land Co.	1887	3,000,000	100	April, '87	q 1	6	6 1/2
Gate City Land Co.							24
Hecla Coal Co.	1888	300,000	100			5	
Hendersou Steel & Mfg. Co.	1887	100,000	100			75	82 1/2
Jefferson Building & Improvement Co.	1887	150,000	100				65
Jagger-Townley Coal & Coke Co.	1887	350,000	100			8 1/2	10
Leeds Land Co.	1887	150,000	100			52	62
Mag. Ellen Coal & Mining Co.	1887	100,000	100			100	
Mary Lee Coal & Railway Co.	1888	500,000	100			30	
North Birmingham Land Co.	1886	700,000	100				60
Smithfield Land Co.	1886	800,000	100			1 1/2	
Sloss Iron & Steel Co.	1887	4,000,000	100			44	14 1/2
South Anniston Land Co.	1887	750,000	100	Apr. 15, '90	h 1	16 1/2	18
Sheffield Coal & Iron Co.	1884	1,000,000	100	Feb. '84	x 5	55	60
Thompson Brick Co.	1887	20,000	100	Feb. '84	5		90
Tennessee Coal & Iron Co.	1867	9,000,000	100	May 15, '87			51
Tennessee Coal & Iron Co., pref.		1,000,000				100	105
Tuscaloosa Coal, Iron & Land Co.	1887	1,000,000	100			24	37
Vulcan Coal & Coke Co.		100,000	100			5	
West End Land Co.	1886	175,000	100			60	75
Woodstock Iron Co.	1887	3,000,000	100				39

BONDS.		Amount	INTEREST.		
		Outstanding.	Rate Per Cent.	Bid.	Asked
Alice Furnace		300,000	7	103	
Birmingham Gas & Electric Light Co.		340,000	8		92
Birmingham Union Railway Co.		500,000	6	92 1/2	100 1/2
Birmingham Water Works		400,000	6	108	
Cahaba C. & M. Co., 1st Mortgage		750,000	7	111	116
Caldwell Hotel		150,000	7	97	
Elyton Land Co., Trust Bonds		2,400,000	6		98
Eureka (Furnace) Co.		400,000	7	109 1/2	
Hendersou Steel & Mfg. Co.		50,000	8	73	
Mary Pratt Furnace		100,000	7	106	
Sloss Iron & Steel Co., 1st Mortgage		2,000,000	6	94	97
" " 2d		2,000,000	6	67	70
Williamson Iron Co.		60,000	8	100	105
Tennessee Coal, Iron & R. R. Co.					
Tennessee Division		1,254,000	6	96 1/2	
Birmingham Division		3,640,000	6	100	

EXPLANATION.—a—For six months. q—Only dividend declared since organization. x—This company declares 5 per cent. February 2 also. z—Total dividends paid, 50 per cent. 1—Dividend for one year, ending July 1, 1889. E—Sold hereafter. Ex is per cent dividend. o—Dividend 1 per cent. paid in May, '87, also October 1. n—Fifty per cent. Dividend on Union R. R. Stock. h—Payable October 15, 1889. f—A 5 per cent. Dividend has been paid quarterly since organization. w—For dividends refer to the company. \* \* \* May 6, '87, 50 per cent. cash; May 10, '87, 50 per cent. cash; Sept. 14, '87, 50 per cent. cash; Oct. 10, '87, 10 per cent. cash; Oct. 10, '87, 10 per cent. cash; Nov. 10, '87, 10 per cent. cash; Nov. 10, '87, 100 per cent. in Elyton Land Company's Trust Bonds.

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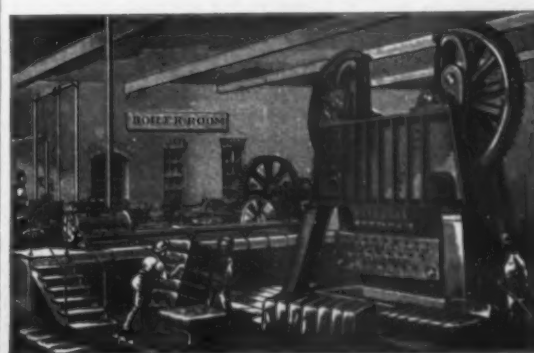
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# CONSTRUCTION DEPARTMENT.

**WE PUBLISH, every week, a list of every new factory, of whatever kind, projected anywhere in the South; every railroad undertaken, and every mining company organized. This information is always fresh, and, by enabling manufacturers to correspond with the projectors of such enterprises before their supplies of machinery have been purchased, is of great value. Manufacturers will find it to their interest to read this department carefully each week.**

## Active Times Throughout the South

Regardless of the efforts of a few politicians to retard the South's industrial progress, the great mass of the American people North and South are becoming more and more impressed with the wonderful activity that is seen everywhere from Maryland to Texas. Enterprises involving millions of dollars are being pushed ahead by men who a year or two ago would not believe that the South possessed the advantages which the MANUFACTURERS' RECORD had for years claimed for it; nor would they believe that it was ever to hold the commanding position in industrial matters which they are now doing all in their power to give it. At Norfolk and at Salem, Va., plans are being matured by outside capitalists for extensive steel plants, the one at Norfolk to make Bessemer steel from Cuban ores and the one at Salem for basic steel, while at Buena Vista the money has been raised for a \$500,000 steel plant. At Tredegar, Ala., work has been commenced upon the large steel enterprise recently reported, which is to have a daily capacity of 300 tons of finished steel, and include rolling mill, rail mill and cotton tie mill. Here are four great steel-making enterprises which are but signs of the times that indicate that the South is now to turn its attention to steel making with the same vigor that it has for several years given to the increase in iron production. This is the rounding out of the South's development, and is but the natural order of growth from the first stages of a country's development in the making of the coarser grades of goods to the finer productions. As in iron and steel, so will it be in the manufacture of cotton goods, for the South, having gained control of the market for the cheaper grades of cotton goods will, now turn its attention to finer qualities, and in all other lines of industry we may look for the same evolution.

The past week has been prolific of new enterprises, large and small, in addition to the four steel plants mentioned. At Charlotte Harbor, Fla., large phosphate works are to be built by a company having a paid-up capital of \$400,000. At Rome, Ga., \$200,000 brick works are to be built, and at Savannah, a \$60,000 wall plaster company has been organized. At Greensboro, N. C., Philadelphia capitalists are to build a \$100,000 rolling mill. In Maryland a \$50,000 quarrying company has been organized. At Marion, N. C., a \$1,000,000 gold mining company will put in mining machinery and establish chlorination works; at Wilmington, in the same State, a \$40,000 factory to extract oil from pine has been built; at Monroe, a \$100,000 land company has been organized, and at Marion, a \$60,000 land company. Chattanooga, Tenn., is to have a new \$50,000 ice factory, and Nashville will probably secure a \$1,000,000 packing-house. In

Virginia a \$500,000 company has been organized at Staunton to build a beef packing house; a mining company has purchased near Dillwyn 30,000 acres of land, and will build a new town; at Mineral City an English company with a capital of \$1,200,000 has purchased extensive gold mines, and will erect sulphuric acid, phosphate and reduction works. This is a summary of only a few of the big enterprises for one week, and, taken in consideration with the many smaller concerns that are being established in almost every town of the South, it gives a fair idea of what the South is doing, despite politics and the heat of mid-summer.

\*Means machinery is wanted, particulars of which will be found in "Machinery Wanted" columns.

✂ In correspondence relating to matters reported in this paper, it will be a favor if it is stated that the information was gained from the MANUFACTURERS' RECORD.

## ALABAMA.

Attalla—Cotton Compress and Fertilizer Factory.—The Attalla Compress & Fertilizer Co. is reported as enlarging its cotton compress.

Bibbville—Fire-brick Works.—Miner Bros., of Pratt Mines, have, it is reported, purchased the fire-brick works of D. A. Flournoy, will increase capacity of and operate same.

Birmingham—Stock-yards.—The Louisville & Nashville Railroad Co. (office, Louisville, Ky.) has opened the Union Stock-yards mentioned in last issue, and has leased same to James & Odo Neil.

Bridgeport—Elevator.—The Nashville, Chattanooga & St. Louis Railroad Co. (office, Nashville, Tenn.) is, it is reported, erecting an elevator in Bridgeport.

Brookwood (P. O. at Tuscaloosa)—Coke Ovens, &c.—It is reported that the Standard Coal Co. is opening coal mines and constructing 200 coke ovens.

Kellyton—Mineral Lands, Lime Works, &c.—It is stated that J. F. Turner and E. J. Wright, of Dadeville; William Gray, of Birmingham, and others have purchased 1,700 acres of mineral land near Kellyton, and organized a stock company to develop same, establish lime works, open coal mines and stone quarries, and erect saw mills.

Luverne—Barrel Factory.—C. A. Cowart will erect machinery for manufacturing barrels.\*

Mobile—Shingle Mill.—Stewart & Butt, reported in last issue as increasing the capacity of their shingle mill, are putting in a double block machine and enlarged building.

Mobile—Dry-kiln.—C. G. Richards & Son have put a dry-kiln into their shingle mill, as reported last week.

Montgomery—Ginnery.—The Montgomery Ginnery & Cotton Co. is enlarging its ginnery. Machinery has been purchased.

New Market—Oil Wells.—A stock company is reported as organized by Northern parties and others to sink oil wells near New Market.

Opelika—Cotton Compress.—Isadore Weil is president, G. W. Hopson, vice-president, and H. L. Bandy, secretary, of the Opelika Compress Co., mentioned in last issue. The company has purchased site for its compress for \$1,500.

Oxford—Iron Furnace.—A. C. Stucky & Co., of Oxford, have completed the furnace for the Langdon Iron Co., previously reported, and are making plans for another furnace elsewhere.

Piedmont—Ice Factories, Saw Mills, Land, &c.—The Wilmington Real Estate Co., recently mentioned as having purchased the Hughes estate of 200 acres of land, has been organized by W. M. Canby and Otho Nowland, of Wilmington, Del.; T. P. Ledbetter and others. The company will be chartered to purchase and improve land, erect ice and other factories, saw mills, &c.

Tredegar (P. O. Jacksonville)—Soap Factory, &c.—The erection of a plant for the manufacture of castile soap and olive oil is projected, in connection with the cotton-seed oil mill now under construction.

Tredegar (P. O. Jacksonville)—Steel Plant.—Work has begun on the construction of the steel plant lately mentioned. The plant will comprise steel mill, rolling mill, rail mill and cotton-tie mill, and will have a daily capacity of 300 tons.

Troy—Stave Factory.—Mr. Green is reported as erecting a stave factory.

Tuscaloosa—Sewer.—W. W. Thompson has re-

ceived contract to construct 1,508 feet of brick sewer, &c., at \$6,102.65.

## ARKANSAS.

Little Rock—Bridge.—A bridge will probably be built over the Arkansas river to Argentina.

Mammoth Spring—Water Works.—It is stated that a stock company has been organized to construct a water works system.

Pine Bluff—Stave Factory.—Dreyfus & McMillan, of Walnut Lake, have made a proposition to move their stave factory to Pine Bluff.

Pine Bluff—Paving.—Mr. Miller, of Memphis, Tenn., has received contract to pave Main street at \$18,150.

Smithville—Zinc Land.—W. C. Sloan has sold 400 acres of land to A. K. Florida, of St. Louis, Mo., who is now prospecting for zinc, with favorable indications.

Stuttgart—Creamery and Cheese Factory.—Contract was let for the erection of the creamery and cheese factory as lately reported. The Stuttgart Creamery Co. will probably operate it.

## FLORIDA.

Cedar Keys—Ice Factory.—The American Refrigerating & Canning Co., of Waldo, has sold its ice factory to the Southern Fish Co., which will move it to St. Petersburg.

Charlotte Harbor—Phosphate Works.—The Charlotte Harbor Phosphate Co., lately referred to, will be chartered in August, when works will be erected; paid capital, \$400,000. John L. Hammond, of Savannah, Ga., can give information.\*

Eau Gallie—Artesian Well.—John McAllister is sinking the artesian well mentioned last week.

Milton—Saw and Shingle Mill.—W. C. & L. S. Cater, of Greenville, Ala., will, it is stated, erect a saw and shingle mill in Milton.

Myers—Laundry.—The establishment of a steam laundry is talked of.

New Smyrna—Concrete Works.—John Sanchez is reported as investigating with a view of establishing concrete works.

Sanford—Creamery.—The erection of a garbage creamery is contemplated.

South Jacksonville—Fertilizer Factory.—The stock company reported in last issue as organized to erect a fertilizer factory has been incorporated as the Little Bros. Fertilizer & Phosphate Co., by A. and J. A. Little, of England; Harvey Granger, of Jacksonville, and others. The capital stock is \$100,000.\*

Tampa—Machine Shop.—J. H. Wells will at once erect a two-story machine shop 40x96 feet.

## GEORGIA.

Augusta—Brick and Tile Works.—The McCoy Brick & Tile Co., recently referred to, has purchased necessary machinery.

Augusta.—D. B. Dyer and associates have purchased the Lambert property as lately reported.

Augusta—Bridge.—The North Augusta Land Co., previously reported as organized, will construct a bridge across the Savannah river.

Augusta—Electric Plant.—The Augusta Electric Light & Motor Co., referred to last week, has been incorporated by D. B. Dyer, R. M. Spivey, R. M. Conklin and others for the purpose of furnishing lights and motive power throughout Augusta and suburbs.

Barnesville—Ice Factory.—It is probable that an ice factory will be erected.

Brunswick—Land.—The Brunswick Investment Co. has, it is reported, purchased a tract of land in Windsor Park for \$160,000, and will improve same.

Cartersville—Mineral Lands.—A. O. Granger, J. M. Gazzam and J. M. Africa have incorporated the Etowah Iron Co. to deal in mineral lands, build furnace, mine ore, etc. The capital stock is \$1,500,000.

Covington—Cotton Mill.—The Bibb Manufacturing Co., of Macon, is reported as to erect a \$100,000 cotton mill in Covington.

Dawson—Electric Light Plant.—The electric light plant lately mentioned will probably be put in by the city and a local company.

Dawson—Ice Factory.—A 10-ton ice machine will be purchased by a local company. Hon. W. B. Cheatham can give information.\*

Emerson—Iron and Manganese Lands.—The Georgia Manganese & Iron Co. has, it is reported, purchased 360 acres of manganese and iron lands near Emerson, and will develop same.

Gainesville—Iron Foundry.—James Brown, of Dalton, and R. J. Meador, of Griffin, have, it is reported, purchased the Gainesville iron foundry and will operate same.

Griffin—Brewery and Ice Factory.—A \$50,000 stock company will probably be organized to erect a brewery and ice factory.

Holly Springs—Gold Mine.—H. F. Turner, of Atlanta, is, it is reported, developing the La Belle gold mine.

Macon—Ice Factory.—The Macon Brewing Co. has completed the erection of its mammoth ice factory.

Marietta—Cotton Gin and Fertilizer Factory.—A stock company will probably be organized to erect a cotton gin and fertilizer factory.

Newnan—Barrel and Stave Factory.—W. A. Turner is considering starting a barrel and stave factory.\*

Quitman—Cotton Compress.—J. S. Coles, Jr., is president, and S. S. Rountree, vice-president, of the Quitman Compress Co., previously reported.

Rome—Brick and Sewer-pipe Works, &c.—James Sullivan and W. K. Burton, of Tennessee; W. C. P. Smith, of Maryland, and others have incorporated the Rome Brick & Building Co. to establish brick and sewer-pipe works, etc. The capital stock is \$200,000.

Rome—Chemical Works.—W. L. Goldsmith is president, and H. J. Pratt, secretary, of the Rome Chemical Works, recently reported.

Savannah—Plaster Factory.—R. R. Peale and James Fender, of Philadelphia, Pa., and Allen Bond and E. D. Kauffman have incorporated the Southeastern Plaster Co. to manufacture adamant wall plaster, &c. The capital stock is \$60,000.

Wadley—Saw and Planing Mill.—The Southern Lumber Co., of Atlanta, will erect at some point on the Wadley & Mt. Vernon Railroad a saw and planing mill, dry-kilns, etc.; capacity of saw mill 100,000 feet daily.\*

## KENTUCKY.

Covington—Phosphate.—The Florida Blue Rock Phosphate Co. and the South Florida Phosphate Co., mentioned last week, expect to erect a plant within the next 90 days in De Soto county, Florida.\*

Fulton—Water Works.—The city of Fulton has decided to issue \$25,000 for the purpose of providing for the erection of a system of water works, lately referred to. The works will be built by contract. Address the mayor.

Henderson—Distillery.—J. G. Roach will probably organize a stock company to erect a whiskey distillery.

Henderson—Land.—E. G. Sebree, Jr., Charles Dishman, Dr. Hardin and others contemplate organizing the Henderson Land & Improvement Co., as lately reported; capital \$500,000.

Henderson—Cotton Mill.—A \$400,000 stock company will, it is reported, be organized to erect a cotton mill.

Hickman—Paint and Blacksmith Shops.—Hertweck, Baltzer & Co. are rebuilding their paint and blacksmith shop, reported in last issue as destroyed by fire. Each building will be 125x80 feet in size.

Louisville—Gold Mines.—The Americo-Mexican Gold Mining Co. has been organized with T. G. Stuart, president; G. W. Aydcloft, vice-president, and L. A. Russell, secretary, to develop gold mines in Mexico. The capital stock is \$3,000,000.

Louisville—Land.—Kansas City (Mo.) capitalists have, it is reported, purchased the Bryn Mawr property for \$50,000.

Middlesborough—Brick Works.—W. H. Turner is president, and Robert Lyon, secretary, of the Standard Brick Co., previously mentioned. The capital stock is \$25,000.

Mt. Sterling—Electric Light Plant.—The Mt. Sterling Electric Light Co. has made the city a proposition to erect an electric light plant.

Newport—Plating Works.—C. W. Mackey, W. H. Forbes, Philip Engelskirger and others have incorporated the C. R. Smith Plating Co. to manufacture wire-plated metallic stock, &c. The capital stock is \$2,500,000.

Peters Creek—Saw Mill.—It is reported that a saw mill has been erected.

Tyrone—Distillery.—T. B. Ripy expects to erect a new distillery.\*

## LOUISIANA.

Cane Ridge—Saw Mill.—Mayberry Bro. & Co. are erecting a saw mill.

Cheneyville—Sugar Factory.—A central sugar factory will probably be erected near Cheneyville.

Covington—Pottery.—The Covington Pottery Co. has been organized with C. M. Holden as president and J. J. Lea, secretary, to operate the pottery of J. Bercegeay.

Franklin—Ice Factory.—The establishment of an ice factory is talked of.

Houma—Ice Factory.—Jack Bisland and others are contemplating the erection of an ice factory.\*

New Orleans—Wire Mill.—The Gulf Wire Mill Co., mentioned last week, has decided to increase its capital stock to \$100,000. The company is now receiving estimates for erecting a wire-drawing plant, and will also need 300 horse-power additional steam power.



New Orleans—Coal and Coke Mines.—W. R. Renaud, S. A. Calogne, H. E. Anderson and others are the incorporators of the Louisiana & Alabama Coal & Coke Co., Limited, lately reported.

New Orleans—Brewery.—Work will be commenced about the first of August on the brewery lately reported as to be erected by the Jackson Brewing Co. Louis Imholte, Jr., secretary, can give information.\*

Shiloh—Cotton Gin.—A. J. & W. S. Farrar are erecting a cotton gin.

Weldon—Grist Mill and Cotton Gin.—J. M. Odom is erecting a grist mill cotton gin and to horse-power engine.

#### MARYLAND.

Baltimore—Machine Shops, Round House, &c.—H. T. Douglas, chief engineer, will receive bids until August 12 for furnishing materials and constructing round-houses and machine shops at Trinidad, on the Washington Branch, and Brunswick, on the main stem of the Baltimore & Ohio Railroad.

Bloomington—Coal Land.—It is stated that H. G. Davis has purchased the Warnie coal property from Judge Hamill, of Oakland, for \$11,000.

Easton—Washing Powder Factory.—The Easton Manufacturing Co. has increased its capital stock to \$200,000, and will, it is stated, enlarge its washing powder factory.

Easton—Flour Mill.—C. R. Leonard, W. T. Elbin and J. H. Covington have purchased an acre of land near Easton, and will, it is stated, erect a roller process flour mill.

Hagerstown—Carriage Factory.—The Hess Manufacturing Co., of Westminster, will remove its carriage and wagon factory to Hagerstown. This is, doubtless, the carriage, cart and wagon factory lately mentioned.\*

Pocomoke City—Land.—Benjamin Jones, Jr., has, it is reported, purchased the farm of William Sturgis for \$5,000.

Sam's Creek—Flour Mill.—J. L. Devilbiss will, it is reported, erect a roller flour mill.

Texas—Stone Quarries, &c.—J. J. Kelley, F. P. K. Walsh, J. G. Brittain and others have incorporated the Maryland Marble, Lime & Improvement Co. to operate stone quarries, manufacture lime, &c. The capital stock is \$50,000.

Washington, D. C.—Land.—A. M. Read, R. H. Thayer, J. H. Tibbetts and others have incorporated the Fidelity Investment Co. to deal in real estate. The capital stock is \$4,000.

Washington, D. C.—Carriage Factory.—The carriage manufactory and warehouse of C. C. Walter, reported in this issue as burned, will be rebuilt at once.

Williamsport—Chair Factory.—A \$30,000 chair factory will, it is reported, be established.

#### MISSISSIPPI.

Byhalia—Gin and Grist Mill.—Kirby & Son are erecting gin and grist mill, as lately reported, with the intention of adding other machinery later.

Canton—Artesian Well.—It is stated that an artesian well is being sunk.

Columbus—Furniture Factory, &c.—A \$200,000 stock company is reported as organized to erect a furniture factory, tannery, glue and button factory.

Jackson—Machine Shops, &c.—The Mobile, Jackson & Kansas City Railroad Co. has made the city a proposition to erect machine shops and roundhouse.

Meridian—Sewerage.—The construction of a sewerage system is contemplated.

Moss Point—Spoke, Hub and Handle Factory.—A. Blumer & Sons are erecting a spoke, hub and handle factory.\*

Moss Point—Lumber Mill.—The Pascagoula Lumber Co., mentioned last week, has added a new circular saw and intends erecting one or more dry-kilns.

Vicksburg.—The Vicksburg Cotton Press Association has held a stockholders' meeting to organize the association, purchase property and provide for the issuance of bonds.

#### NORTH CAROLINA.

Connelly's Springs—Land.—The Connelly Springs Co., lately reported (under Salisbury), has been incorporated with a capital stock of \$50,000.

Creston—Wagon Factory.—N. J. Lillard has purchased the wagon factory of Worth & Lillard and is enlarging same.\*

Durham—Publishing.—The Educator Publishing Co. has been organized with J. F. Crowell as president; T. J. Jarvis, vice president, and W. A. Blair, secretary, to publish the Southern Educator.

Fayetteville—Dry-kiln.—The Enterprise Land & Improvement Co., mentioned last week, will erect a dry-kiln.\*

Glenburnie—Knitting Mill.—It is stated that the Curtis Creek Mining & Manufacturing Co. will establish a knitting mill.

Goldboro—Electric-light Plant.—I. F. Dortsch, B. M. Privett and J. C. Eason have organized the Goldboro Electric Light & Power Co., and

purchased the electric-light plant of the Goldboro Electric Light Co. The capital stock is \$25,000.

Graham—Cotton Mill.—The Sidney Cotton Mills are adding looms to its mills, as reported in last issue.

Greensboro—Rolling Mill, &c.—The stock company mentioned in last issue as organized by Leon Dodson, Jr., of Philadelphia, Pa., and others, has been incorporated as the North Greensboro Rolling Mills & Improvement Co. by J. Cox, Jr., and D. S. Cresswell, of Philadelphia, Pa.; J. E. Boyd and others. It is stated that it will build rolling mills on the Kirkpatrick property.

Greensboro—Sewer-pipe.—Wm. M. Houston, chairman sewerage committee, will receive proposals until August 6 for furnishing about 2½ miles of sewer-pipe from 10 to 20 inches in diameter, with fittings for same.

Greensboro—Electric-light Plant.—The Greensboro Female College will put in an electric-light plant. J. A. Odell, secretary and treasurer, can give information.\*

Greensboro—Buggy Factory.—Hackney Bros. of Wilson, will probably move their buggy factory to Greensboro and increase capacity of same.

Lenoir—Gold Mine, &c.—It is stated that an English company has erected a stamp mill, and is developing a gold mine near Lenoir.

Marion—Electric-light Plant.—The erection of an electric-light plant is talked of.

Marion—Saw Mill.—It is stated that a company has purchased the saw mill of M. M. Teague, will improve same and put in new machinery.

Marion—Gold Mine.—The Idler Gold Mining Co. has been organized by Boston (Mass.) capitalists with W. P. Jones, secretary, to develop gold land near Marion. Will put in quartz mining machinery and build chlorination works. The capital stock is \$1,000,000.

Marion—Woodworking Factory.—Mr. Roberts, of Savannah, Ga., will, it is reported, establish a woodworking factory in Marion.

Marion—Land.—The Augusta-Marion Improvement Co., with a capital stock of \$60,000, has been incorporated with C. E. Walker, president, and James Fleming, secretary. It has purchased 80 acres of land in Marion for \$60,000 and will improve same.

Monroe—Cotton Mills.—The Long Island Cotton Mills Co. is enlarging its mills by the addition of improved cotton machinery.

Monroe—Land.—The stock company mentioned in last issue has been incorporated as the Monroe Land & Improvement Co. with L. A. Burke, of Aberdeen, Dakota, as president; O. W. Carr, of Greensboro, vice-president; J. M. Fairley, of Monroe, treasurer; J. W. Townsend, of Monroe, secretary, and F. C. Beard, of Syracuse, N. Y., general manager.

Nashville—Stone Quarry.—The Stone Mountain Granite Co. is reported as opening a stone quarry.

Tarboro—Land.—It is stated that Baltimore (Md.) and other capitalists have purchased 200 acres of land from W. S. Battle and will improve same.

Thomasville—Flour Mills.—J. A. Kennedy is putting new machinery into his two flour mills, as reported recently.\*

Turnersburg—Cotton Mill.—Stimpson & Steele are rebuilding the cotton mill destroyed by fire, and formerly belonging to W. Turner & Co.\*

Wadesboro—Cotton Mill.—The Wadesboro Cotton Mills has been organized with W. J. McLenon, as president, and W. L. Steele, secretary, to erect the cotton mill recently mentioned.

Wilmington—Oil Mill.—The \$40,000 manufacturing plant recently mentioned has, it is stated, been erected, and will manufacture oil and other products from pine wood.

Winston—Ice Factory.—The company mentioned last week will erect an ice factory. Address D. H. King for information.\*

#### SOUTH CAROLINA.

Abbeville—Sash, Door and Blind Factory.—A. W. Smith, R. E. Hill, J. W. Thompson and others have incorporated the Abbeville Manufacturing Co. to establish the sash, door and blind factory previously mentioned. The capital stock is \$5,000.

Anderson—Laundry.—R. A. Mayfield, R. S. Ligon, J. R. Vandiver and others have incorporated the Anderson Laundry Co. to establish the steam laundry previously mentioned. The capital stock is \$2,500.

Charleston—Cotton Mill.—J. F. Cochran and others, of Philadelphia, Pa., are investigating with a view of establishing a cotton mill.

Charleston—Lithographing and Printing.—The Lucas & Richardson Co., mentioned last week, is organized to carry on the lithographing and printing business.

Charleston—Wharf, etc.—C. F. Middleton, E. C. Marshall, H. S. Cordes and others have incorporated the Marine Wharf & Storage Co. with a capital stock of \$15,000.

Chester—Electric-light Plant.—An electric-light plant will probably be erected.

Chester—Oil Mill and Fertilizer Factory.—The Farmers' Alliance is contemplating the erection of the oil mill and fertilizer factory lately men-

tioned. Address James G. L. White for information.

Greenville—Cotton Mill.—The Camperdown Cotton Mills will, it is reported, put up two new water wheels at its No. 2 mill.

Orangeburg—Laundry.—B. H. Moss is president; J. W. Fairley, vice-president, and J. W. Bowman, secretary, of the Orangeburg Steam Laundry Co., lately reported.

Rock Hill—Ice Factory.—Ed. Fewell contemplates erecting an ice factory with daily capacity of 10 or 20 tons, and sinking an artesian well.\*

Spartanburg—Land.—It is stated that Andrew Carnegie, of Pittsburgh, Pa., has purchased 7,000 acres of ore lands near Spartanburg. Probably incorrect.

Taxahaw—Gold Mine.—J. M. Belk has discovered gold on his land, as lately reported, and desires to correspond with companies wishing to invest.

#### TENNESSEE.

Bristol—Electric Railway Signal.—E. C. Wiley will probably organize a stock company to manufacture his patent electric railway signal.

Chattanooga—Ice Factory.—The Consumers' Ice Co., with a capital stock of \$50,000, has been incorporated by Edward Kohn, W. J. Shamowski, H. T. Bowman and others to erect an ice factory.

Chattanooga—Publishing.—The News Publishing Co. is reported as to put in new machinery.

Chattanooga—Malleable Iron Plant.—The Rossmehan Brake Shoe Foundry Co. writes in reference to the report last week that it intends building a malleable iron plant and hopes to begin work in August.

Chattanooga—Stove Works.—It is stated that G. O. Ide is organizing the Chattanooga Oil Stove Co. to manufacture his patent oil heating stove.

Chattanooga—Paving.—S. H. Russell, B. M. Turner, W. G. M. Thomas and others have chartered the Tennessee Paving Co.

Clarksville—Lumber Mills.—It is stated that the City Lumber Mills will be remodeled at a cost of about \$6,000.

Clinton—Water Works.—It is stated that a stock company has been authorized to construct water works.

Dayton—Laundry.—A stock company is, it is stated, being organized to erect a steam laundry.

Gallatin—Land.—It is stated that J. C. Rodimer has purchased the Robert Elkin property of 66 acres for \$7,000.

Harriman—Rolling Mill.—The Lookout Iron Co., of Chattanooga, will move its rolling mill to Harriman, where it will be improved and enlarged.

Humboldt—Electric-light Plant.—It is reported that an electric-light plant will be erected.

Johnson City—Saw and Planing Mill.—Stratton & Stratton are intending to start a saw and planing mill and dry-kilns.\*

Knoxville—Land.—E. J. Davis, R. A. Dawson, B. A. Jenkins and others have incorporated the Rosedale Land Co.

Knoxville—Paving, &c.—The city will advertise for bids for the improvement of Sante Fe street.

Lenoir's.—E. J. Sanford is president, and C. M. McClung, secretary, of the Lenoir City Co., previously reported. The capital stock is \$300,000.

Nashville—Packing-house, &c.—Kansas City (Mo.) capitalists have made a proposition to erect a \$1,000,000 cold-storage and pork packing plant in West Nashville.

Ooltewah—Powder Mill.—Samuel Newton, of Xenia, Ohio, and others have incorporated the Chattanooga Powder Co. to establish gun powder mills at Ooltewah. The capital stock is to be \$50,000. Address care of Samuel Newton, Xenia, Ohio.\*

Pulaski—Creamery.—The Pulaski Creamery, previously reported, has for its officers T. P. White, president, and J. B. Stacy, secretary and treasurer.\*

#### TEXAS.

Aubrey—Cotton Gins.—Two cotton gins are reported as being erected.

Aurora—Oil Mill.—The erection of a cottonseed oil mill is being agitated.

Ballinger—Water Works.—The city of Ballinger contemplates erecting a system of water works. B. S. Taylor, mayor, can give information.

Bascom—Water Works.—A corporation will construct water works. Undecided whether to use artesian well or stand-pipe system. Estimates are wanted. Address A. B. McLary.

Belton—Canning Factory.—It is stated that a canning factory will be erected.

Bowie—Coal Mines.—Coal mines are, it is reported, being opened near Bowie.

Brenham—Oil Mill.—It is reported that the Brenham Cottonseed Oil Mill will be improved.

Caldwell—Land.—W. F. Windel, of Denver, Col., has, it is stated, purchased a 1½-mile tract of land from W. W. Snyder for \$25,000.

Corpus Christi—Land.—Russell B. Harrison and others, of New York city, have, it is reported, purchased 1,000 acres of land on Port Aransas cliffs city property for \$250,000.

Denton—Canning Factory.—A canning factory will probably be erected.

Eastland—Grain Elevator.—A. S. Connelley & Co. will, it is reported, erect a grain elevator at their flouring mills.

Gatesville—Water Works, &c.—The company recently reported as to construct water works and sink an artesian well has been organized as the Gatesville Water Supply Co., with N. M. Duffie, president, and J. W. Sanders, secretary.

Greenville—Artesian Well.—The city will probably sink an artesian well.

Hubbard—Artesian Well.—It is stated that contract has been let for the sinking of an artesian well.

Jacksonville—Basket Factory.—It is stated that a cotton-basket factory will be erected.

McGregor—Artesian Well.—A stock company is reported as organized to sink an artesian well.

Morgan—Cotton or Woolen Mill.—The Board of Trade is offering inducements for the establishment of a cotton or woolen mill.

Orange—Lumber Mill.—D. R. Wingate, Rufus Wingate, M. T. Jones, of Houston, and others have incorporated the D. R. Wingate Lumber Co. to rebuild the lumber mill of D. R. Wingate, recently reported as burned.

Paradise—Cotton Gin.—A. J. Jones is erecting the cotton gin mentioned last week.

San Antonio—Pottery and Tile Works.—It is stated that Nelson Mackey will erect a tile and pottery manufactory 40x120 feet.

Taylor's Bayou—Saw Mill.—P. & G. Landrum have, it is reported, erected a saw mill.

Waringford—Cotton Gin.—It is stated that A. Ralf, Jr., has erected the cotton gin lately mentioned.

Weatherford.—The Texas Coal & Fuel Co. has been incorporated.

Yoakum—Ice Factory.—An ice factory will probably be erected.

#### VIRGINIA.

Allisonia—Lumber Boom.—The Reed Island Boom, Land & Lumber Co., previously mentioned as incorporated, intends putting up a lumber boom on Big Reed Island creek, and also a saw mill. Address R. L. Gardner, treasurer, Pulaski City, for information.

Basic City—Tannery.—It is reported that a \$500,000 tannery will be established. If true Samuel Forrer can give information.

Basic City—Wire Fence Factory.—W. J. Hulvey is, it is stated, erecting a wire fence factory.

Basic City—Iron Furnace.—Z. T. Henry is, as previously reported, constructing the foundation for the iron furnace to be erected by the Basic Mining, Manufacturing & Land Co. Contract for remaining work has not been let as yet.

Bolling (P. O. Dillwyn)—Mining, Manufacturing, New Town, etc.—The Whispering Valley Co. has been chartered with Thomas H. Garnett, president, and Robert T. Hubbard, secretary, for the purpose of securing about 30,000 acres of land in Buckingham and Cumberland counties, laying out town sites, mining coal, iron, copper, sulphurite of iron and copper and other minerals and metals, manufacturing metals, dealing in real estate and conducting a savings bank or banks; capital stock not less than \$15,000 or more than \$500,000. The company is negotiating for beds of red and brown hematite ore.

Buena Vista—Ice Factory and Laundry.—Henkel & Co. will probably erect an ice factory and a laundry.

Gordonsville—Broom Factory.—It is stated that a broom factory has been established.

Hanover—Fertilizer Factory.—The Farmers' Alliance is organizing a company to manufacture guano, as recently reported. B. L. Winston can give information.

Lexington—Land.—A Norfolk syndicate is reported as having purchased the Ballagh property of 700 acres from Mrs. M. T. Ballagh for \$25,000.

Lynchburg—Improvements.—It is stated that contract has been let for a \$10,000 improvement on lower Church street.

Lynchburg—Furniture Factory and Machine Works.—The warehouse and factory, lately referred to, to be erected by the West Lynchburg Furniture Co. are to be 152x80 feet and 23x80 feet, respectively. The buildings for the Valley Engine & Machine Co. will be 120x40 feet, 120x50 feet, 100x50 feet and 21x24 feet.

Lynchburg—Brick Works.—Brick works, with a daily capacity of 30,000 brick, will be built within 30 days. The West Lynchburg Land Co. can give information.

Natural Bridge—Land.—The Natural Bridge properties have been purchased, as reported last week, by a syndicate composed of Francis W. Breed, of Lynn, Mass.; J. R. Leeson, Boston, Mass.; Joseph Davis, Lynn, Mass.; L. H. Shields, of Norfolk, and M. M. Martin, of Glasgow. The syndicate intends to build a summer resort, and will erect a stone hotel.

New Castle—Water Works.—The New Castle Water Co. has been incorporated with A. E. Humphreys as president and P. V. Jones, secretary, to construct the water works recently mentioned.

New Castle—Land.—The New Castle Land & Improvement Co. has, it is reported, purchased tracts of land from Rummel & Costello for \$25,000.

Norfolk—Steel Plant.—It is stated that capitalists interested in the Norfolk & Western Railroad will build the large steel plant previously reported as projected at Lambert's Point. Site is said to have been selected.

Norfolk—Peanut Factory.—B. P. Sale has let contract to Powers & Banks for the erection of a peanut cleaning factory 8x110 feet.

Norfolk—Land.—J. P. Fitzgerald, of Farmville, is president, and W. H. Mann, of Nottoway, vice-president, of the Norfolk Terminal Land Co., reported in last issue.

North Danville—Wagon Factory.—It is rumored that a wagon factory will be established.

Radford—Land.—It is stated that a syndicate has purchased 150 acres of land from J. R. Jordan for \$40,000.

Reed Creek—Iron Mines.—W. R. Hughes has, it is reported, leased the iron mines on the Crockett land and will develop.

Richmond—Electric-light Plant.—The city council will introduce a resolution to appropriate \$75,000 of bonds for the erection of an electric-light plant.

Richmond—Straw Paper Factory, &c.—A stock company will probably be organized to erect a straw and tar paper and paper boards manufacturing.

Richmond—Electrical Works, &c.—The Traylor Electrical Co. has been chartered with A. W. Guber as president; Thomas Potts, vice-president, and J. E. McKinney, secretary, to manufacture electric motors, establish electric-light plants, &c. The capital stock is to be \$100,000.

Salem—Steel Plant.—It is reported that a company is being organized by capitalists interested in the Norfolk & Western Railroad to build a basic steel plant. This is in addition to the McCarty steel plant recently mentioned as to be built at Salem, and upon which it is understood work is to be commenced shortly.

Staunton—Abattoir.—The Virginia Live Stock & Dressed Meat Co. is the name of the \$500,000 stock company lately reported as organized to erect an abattoir.

Suffolk—Artesian Well.—It is reported that F. P. Howell is sinking an artesian well.

Tolersville Sulphuric Acid Works, &c.—It is stated that an English syndicate with a capital stock of \$1,200,000 has purchased the Arminius gold mines for \$500,000, will develop same, and erect sulphuric acid, phosphate and reduction works at Mineral City.

Vinton—Stone Quarry.—Abraham Pedigo has, it is reported, opened a stone quarry near Vinton.

Waynesboro—Paper and Pulp Mill.—D. Holliday, of Philadelphia, Pa., is investigating with a view of establishing a paper and pulp mill.

Wytheville—Water Works.—Wytheville is considering the extension of its water works to bring water from Lick mountain, a distance of 6 miles. W. L. Vost, mayor, can give information.\*

#### WEST VIRGINIA.

Belmont—Oil Wells.—The Brown Oil Co., lately reported, has increased its capital stock to \$65,000.

Coal Valley—Coal Mines.—The Coal Valley Mining Co., with a capital stock of \$3,000, has been incorporated by M. H. Straughan, of Handley; R. G. Saunders, E. T. Straughan and others.

Eureka—Oil Wells.—J. B. Jackson, mentioned last week, has let contract for boring his three oil wells to J. F. Thompson, of Salama.

Fairview—Oil Well.—George Given is reported as sinking an oil well on the Swearingen farm.

Fairview—Oil Well.—It is stated that John McKeown is sinking an oil well on the R. H. Roach farm.

Fairview—Oil Well.—Coast & Evans will, it is reported, sink an oil well on the Emma Marrow farm.

Harper's Ferry—Bridge.—Edward Tearney, J. G. Hurst, C. H. Trail and others are the incorporators of the Harper's Ferry & Loudoun Bridge Co., lately mentioned.

Hinton—Stone Quarries.—The Virginia Brownstone Co., of Covington, Ky., has been incorporated by John L. Scanlan, of Cincinnati, O., and others. The company owns quarries at Hinton and is ready to commence operations.

Huntington—Bicycle Factory.—J. H. Gould is reported as organizing a stock company to erect a bicycle factory.

Huntington—Bridges.—Ingram & O'Neill, referred to last week, have contract for the 400-foot bridge over the Ohio river; also for a 100-foot bridge over the Guyandotte river near Barboursville.

Huntington—Picture Frame Factory.—D. E. Abbott will, it is reported, establish a picture frame factory.

Lost Creek—Flour Mill.—A. D. Cookman & Son, of Rockford, will, it is reported, move their flour mill to Lost Creek.

Mannington—Oil Wells.—J. C. Jones, J. T. Koen, W. S. Meredith, of Fairmont, and others have incorporated the Three Acre Oil Co.

Mannington—Oil and Gas Wells.—The Buffalo Oil & Gas Co. has been incorporated.

Morgantown—Pipe Line.—The Southern Pipe Line Co., of Oil City, Pa., is constructing a pipe line 235 miles in length to a point near Millway, Pa. The line will probably be completed by November 1.

Parsons—Saw Mill.—Dasher & Co., of Shaw, will, it is reported, move their saw mill to Parsons.

Piedmont—Electric-light Plant.—The Piedmont Pulp & Paper Co. is reported as erecting an electric-light plant at its paper mill.

Ritchie C. H.—Oil Wells.—It is stated that G. F. Carroll, of Pennsylvania, has leased 101 acres of oil lands on Devil Hole Run from Judge Camden and will sink oil wells.

West Union—Oil and Gas Wells.—Henry Ash, of Center Point; J. V. Blair, J. A. Davis and others have incorporated the Doddridge County Oil & Gas Co.

Wheeling—Cigar Factory.—It is rumored that Lorillard Bros., of New York city, will establish a cigar factory in Wheeling.

Wheeling—Ice Factory.—The Reyman Brewing Co. is putting in an ice machine, as reported last week; capacity, 75 tons.

Wheeling—Oil Wells.—The Homestead Oil Co. has been organized with E. C. Myers as president, and R. E. Hall, secretary.

White Sulphur Springs—Coal and Iron Lands, etc.—A. C. Snyder is president; H. A. Holt, vice-president, and R. W. Montague, secretary, of the Beaver Lick Iron Co. recently reported. The company owns 15,000 acres of iron land and 2,000 acres of coal land on New river which, it is stated, will be developed; also 800 acres of farm land near White Sulphur Springs which will be laid off into a new town to be called Drewry.

Woodlands—Oil Well.—The Chicago Oil & Gas Co. is reported as sinking an oil well on Fish creek.

#### BURNED.

Louisville, Ky.—The cooperage works of Hugh Stafford; reported loss \$15,000.

Mt. Airy, N. C.—The saw mill of J. R. Roberts, near Mt. Airy; loss about \$3,000.

Paris, Ky.—The repair shops of the Kentucky Central Railroad Co. (office, Cincinnati, O.)

Pruntytown, W. Va.—The saw mill of McIntyre Bros.

Salisbury, Md.—The saw mill of Livingston Bros. at Upper Trappe.

Staunton, Va.—The paint shops and finishing department of the Staunton Furniture Manufacturing Co.

Washington, D. C.—The carriage manufactory of C. C. Walter; estimated loss \$50,000.

Weatherford, Texas.—The cotton gin of John Rentz, near Weatherford; reported loss \$5,000.

Wheeling, W. Va.—The brass foundry of N. W. Beck damaged by fire.

### Building Notes.

Augusta—Hotel.—The North Augusta Land Co. writes that besides constructing a bridge across the Savannah river and building an electrical railroad, will also erect a hotel and make other improvements.

Baltimore, Md.—Hotel.—Baldwin & Pennington have charge of the remodeling of the Eutaw House, referred to last week.

Baltimore, Md.—The Calvert Building & Construction Co. has been incorporated with a capital stock of \$1,000,000 for the purpose of erecting the office building lately referred to. D. E. Conklin is vice president and general manager, and J. A. Gary, F. C. Latrobe, W. C. Seddon and others are among the incorporators.

Bessemer, Ala.—Work has been commenced on the building previously reported as to be erected by the Bessemer Savings Bank.

Charleston, W. Va.—Henry Rummel will, it is reported, erect a four-story business house.

Chattanooga, Tenn.—D. J. Chandler has secured contract for the erection of the Unitarian Church previously referred to.

Dallas, Texas.—Building permits have been granted C. J. Band for the erection of a two-story brick building to cost \$6,000, and W. H. Wheelock, a two-story frame dwelling to cost \$7,500.

Dallas, Texas.—H. Hamilton expects to commence the erection of an office building within 60 days.

Dallas, Texas.—R. L. James has secured contract for the erection of the courthouse lately referred to. It is to be of Honey Grove stone with Pecos trimmings, and first story all Pecos stone. His bid was \$276,967.50.

Denison, Texas.—E. W. Clony has, it is stated, secured contract for the erection of the National Commercial College.

Durham, N. C.—Work has been commenced on the warehouse to be erected by the American Tobacco Co.

Ft. Payne, Ala.—Mr. Gould intends erecting a three-story brick and stone building 50x62½ feet.

Gadsden, Ala.—Guinn, Hicks & Lane have, it

is reported, secured contract for the erection of the Etowah county courthouse, previously reported. Their bid was \$46,000.

Glasgow, Va.—A North Carolina company capitalized at \$100,000 will, it is reported, erect business houses and other buildings at a cost of \$50,000. George Poe is general manager.

Greenville, Texas.—The city will probably issue bonds for the erection of the central school building, to cost \$16,000.

Jackson, Tenn.—The Jackson Brick Manufacturing Co. has, it is stated, received contract for brick work, and May Bros. for wood work for the erection of the Hurt Block.

Little Rock, Ark.—Site has been purchased for the new exposition buildings previously reported as to be erected.

Louisville, Ky.—A Louisville syndicate will, it is reported, erect an eight-story building to cost \$500,000.

Macon, Ga.—A branch of the Southwestern Building and Loan Association has been established in South Macon with M. Daly, treasurer.

Memphis, Tenn.—T. J. Crofford will probably soon let contract for the erection of a four-story brick infirmary building to be 90x60 feet.

Milledgeville, Ga.—Richard N. Lamar, secretary, will receive proposals until August 11 for the erection of the Georgia Normal and Industrial College.

Murphy, N. C.—The Episcopalians contemplate erecting a new church.

Natchez, Miss.—John A. Dicks, president Natchez Hotel Co., will receive proposals until August 9 for the erection of the hotel building previously referred to.

Natural Bridge, Va.—Hotel.—The syndicate mentioned elsewhere in this issue as having purchased the Natural Bridge property, intend building a summer resort and erecting a handsome stone hotel.

New Decatur, Ala.—The Commercial Club and the Independent Order of Odd Fellows will, it is stated, each erect a three story block.

Oxford, N. C.—The Independent Order of Odd Fellows intend erecting in the near future a hall, as lately reported. J. M. Hays, secretary, can give information.

Pineville, Ky.—Work has been commenced on the building to be erected by the Pine Mountain Coal & Iron Co.

Spartanburg, S. C.—Joseph M. Elford, clerk to county commissioners, will receive proposals until August 30 for the erection of the new courthouse previously reported as to be built. Plans and specifications can be seen at clerk's office, Spartanburg, or at office of McDonald & Bros., architects, Louisville, Ky. The estimated cost of the building is \$40,000.

Spring Hill, N. C.—It is reported that the Wilmington & Weldon Railroad Co. (office, Wilmington) will erect a warehouse.

Tuskegee, Ala.—Professor Fonville will, it is reported, erect a brick college building at a cost of \$10,000.

Washington, D. C.—Paul Schulze has prepared plans for the erection of a six-story building, to be 61x116 feet, to be rebuilt by the Anheuser-Busch Brewing Co., of St. Louis, Mo.

Washington, D. C.—C. C. Willard will erect a seven-story office building to cost \$150,000; Sidney A. Kent, a store 22x30 feet, to cost \$50,000; Barr & Sanner, two dwellings, 17x18 feet, to cost \$6,000; G. E. Lemon, a printing office building, 50x125 feet, to cost \$25,000; T. F. Leland, a dwelling, 20x53 feet, at a cost of \$3,000; C. A. Shafer, a dwelling to cost \$13,000; J. H. Lane will erect a hotel, 250x350 feet, to cost \$250,000; George Cochran a hotel to cost \$150,000.

### A Proposed Shutdown of New England Mills.

The movement for a general shutdown of the print cloth mills of New England, in order to curtail the production of a week or more, shows every sign of being successfully carried out, and three or four days at the farthest will definitely decide the matter. There seems to be a unanimity of feeling among mill treasurers as to the advisability of such a course, and it is likely that if the large corporations conclude to stop their machinery, the isolated and smaller plants in New England will follow their example especially when print cloths have dropped to 35 16 cents, and there is every prospect of their dropping to a 3¼-cent basis. That the situation among the print cloth mills is an unusual one is evidenced by the fact that mills outside of Fall River, which have run regular time for years, have started the movement.

Such mills as the Cocheco, Pacific and Merrimac have never known what it was to curtail their print cloth output by an

agreed shut-down of machinery. Their action in the matter lies in the fact that printers who do not manufacture their own cloth can buy cloth on the market at a less price than the Cocheco, Pacific or Merrimac can manufacture it. Treasurer Edmands, of the Cocheco Manufacturing Co., is the originator of the movement, and he has ascertained that the print cloth manufacturers at Lawrence, Lowell, Manchester, Suncook, N. H., those in Rhode Island, and at one or two other points in Massachusetts, are ready to join in a shutdown of one week, the last in August. This information has been sent to Fall River, and the mill treasurers there, in a meeting yesterday morning, decided to shut down at the proposed time if a majority joined in the move. There is only one mill at New Bedford, the Potomska, that manufactures print cloth, and it is probable that the print cloth looms there will also shut down.

There are at present in New England 85 establishments running on print cloths. The number of individual mills is largely in excess of this figure, as many of the plants are composed of several mills. This number of print cloth mills is divided, according to States, as follows: Maine, 1; New Hampshire, 8; Vermont, 2; Massachusetts, 45; Rhode Island, 20, and Connecticut, 9. About 20 of these mills run looms on other products, such as sheetings, drills, cotton flannels, etc. These mills would not be so inclined to shut down as mills turning out print cloths only.

The 65 plants in New England, whose production is entirely prints, have an aggregate equipment of 3,077,496 spindles and about 59,570 looms. The total production of these mills per week would estimate 16,047,532 yards, or about 356,612 pieces. A shutdown of two weeks would mean a curtailment of 32,095,064 yards, or 713,222 pieces. This amount would be over the total manufactured stock now on the market, which up to last Saturday was 697,000 pieces, whereas last year for the same period the amount in sight was only 136,000 pieces. It can thus be seen that a curtailment of even one week of all the print cloth mills in New England would be sufficient to affect the market quite materially.

The remaining 20 mills that run looms on prints have an aggregate capacity of 793,700 spindles and 21,161 looms. Their production in the aggregate is about 1,248,880 yards, of which probably about one-third consists of print cloths. The total number of operatives affected by the movement would be at an estimate in the neighborhood of 28,000; Fall River alone employs over 15,000 operatives in the print cloth industry. Massachusetts is the largest print cloth State in the Union and has 45 mills in operation, turning out over 10,000,000 yards per week. Rhode Island comes next, with 20 mills having a weekly output of over 1,000,000 yards. There are eight mills running on prints in New Hampshire, and the output amounts to nearly 1,200,000 yards each week.

There can be no question that a general movement of the nature of the one proposed will have a beneficial effect on the entire print cloth industry. The operatives seem to be agreeable to the proposition, and would no doubt enjoy a vacation of even two weeks if they could be told in time in order to make preparations. As a prominent manufacturer says: "The movement is a good one and ought to be pushed through, and not only that, but it ought to be made a regular thing every year during the hot weather. The operatives would then be prepared for it, and would regulate their work by it, and the mills could look ahead to an assured loophole through which to crawl when in a tight corner, as at present."—Boston Advertiser.

*If you wish to keep posted on the progress of the South, read the MANUFACTURERS' RECORD. Price \$4.00 a year.*



## RAILROADS OF THE COUNTRY.

## The Magnitude of American Railway Interests.

The MANUFACTURERS' RECORD has gathered from advance sheets of Poor's Railroad Manual the following interesting facts regarding the railway interests of the country:

The general results of the operations of the railroads of the country during the past year were more encouraging than in 1888, the accompanying statements showing a healthy growth in gross earnings, with a small reduction in the average ratio of expenses to earnings. In consequence, the net earnings from traffic operations show an increase of over \$20,000,000, and this sum with an increase of \$4,000,000 in the miscellaneous receipts from investments, etc., of the companies was sufficient to warrant a slightly increased return upon the capital invested.

The showing made in net earnings is particularly gratifying in view of the many causes which tended to an increased ratio of expenses. That the aggregate net earnings failed to reach the total of 1887, or that the average per mile of road was considerably lower than those of 1886 and 1887, does not mean that the railroads cannot be worked at as low a rate now as then. On the contrary, there is every evidence to show that, under reasonable conditions, the existing railroad system of the United States could be operated at an average of 60 per cent. of its gross earnings. The floods of 1889 added, through loss entailed, vast sums to the operating accounts of the railroads effected; and if, in connection with this, there is taken into consideration the proportionately excessive cost of working the new railroads constructed in 1887 and 1888, and first brought into operation in 1889, there is every reason for entire satisfaction that the change in the ratio of expenses is one of reduction instead of augmentation.

Compared with 1888, gross earnings increased \$43,480,326, to which increase the elevated railroads contributed \$1,245,478, the remainder, \$42,234,848, being the increase upon the surface roads, made up by increases of \$8,284,640 in passenger earnings, \$27,329,830 in freight earnings, and \$6,620,378 in mail, express, and other miscellaneous earnings. The most marked increases in earnings were in the States west of the Mississippi and east of the Rocky Mountains. In the Middle States the losses in gross earnings suffered by the coal carrying roads kept the increase for the section down to a narrow margin of \$4,500,000, while the whole South fails to show any gain of consequence. In the latter case this failure to show expected results is due almost wholly to the inability of the vast number of new roads which have recently been brought into operation to report for a full year, as the date of their several openings in nearly every case antedated the close of their fiscal year only by a few months. In consequence the figures of actual traffic statistics cover only the part of the year during which the several roads were operated in 1889.

The total number of miles of railroad in the United States at the close of 1889 was 161,397, of which 5,751 miles were constructed during the year. The mileage of lines making returns of their share capital and funded and floating debts equalled 160,544, against 154,276 for 1888, the increase being 6,268, the rate of increase being 4.06 per cent.

The share capital corresponding to the mileage completed at the end of 1889 equalled \$4,495,099,318, against \$4,438,411,342 in 1888, the increase equalling \$56,687,976, the rate of increase being 1.26 per cent.

The funded debts of all the lines at the close of the year aggregated \$4,828,365,711, a sum \$204,330,748 in excess of the total of 1888 (\$4,624,035,023), an increase of 4.4 per cent.

The other forms of indebtedness of the several companies at the close of the year equalled \$357,477,160, against \$306,952,589 for 1888, the increase being \$50,524,576. The total share capital and indebtedness of all kinds of all the roads making returns equalled at the close of the year \$9,680,942,249, an increase in the year of \$311,543,295 over the total of 1888 (\$9,369,398,954), the rate of increase for the year being about 3.3 per cent.

The cost per mile of all roads making return, as measured by the amount of their stocks and indebtedness, equalled \$60,309, against \$60,732 for 1888.

In 1885 the total capital investment of the railroads of the United States, measured by the amounts of their share capital, funded and unfunded debts, was \$7,852,533,179. Their gross earnings in that year equalled \$772,568,833, or 9.9 per cent on capital invested, while net earnings amounted to \$269,493,931, being 3.4 per cent. on capital invested. In 1886 the total investment was \$8,163,148,652; gross earnings were \$829,940,836, equal to 10.2 per cent. of investment, and net earnings \$300,603,564, or 3.7 per cent. on capital. In 1887 the total investment was \$8,673,187,216; gross earnings were \$940,150,702, equal to 10.8 per cent. of investment, and net earnings \$334,989,119, or 3.9 per cent. on capital. In 1888 the total investment was \$9,369,398,954; gross earnings were \$960,256,270, equal to 10.2 per cent. of investment, and net earnings \$301,631,051, or 3.2 per cent. on capital. In 1889 the total investment was \$9,680,942,249; gross earnings were \$1,003,736,596, equal to 10.4 per cent. on investment, and net earnings \$322,284,986, or 3.3 per cent. on capital.

The following statement shows the increase in share capital, funded and unfunded debts of the railroads during the past ten years—1880 to 1889.

Total.	Capital stock.	Stock increase.	Funded debt.	Unfunded debt.	Total increase.
1880.....	\$2,068,673,375	\$11,006,682	\$2,530,874,943	\$11,385,772	\$162,489,999
1881.....	2,177,375,179	468,701,804	2,876,423,669	222,476,967	596,450,780
1882.....	2,347,075,884	3,417,075,884	3,417,075,884	3,417,075,884	3,417,075,884
1883.....	2,500,000,000	3,765,606,886	3,765,606,886	3,765,606,886	3,765,606,886
1884.....	2,650,000,000	3,999,999,999	3,999,999,999	3,999,999,999	3,999,999,999
1885.....	2,800,000,000	4,191,552,029	4,191,552,029	4,191,552,029	4,191,552,029
1886.....	2,950,000,000	4,438,411,342	4,438,411,342	4,438,411,342	4,438,411,342
1887.....	3,100,000,000	4,685,999,318	4,685,999,318	4,685,999,318	4,685,999,318
1888.....	3,250,000,000	4,933,490,005	4,933,490,005	4,933,490,005	4,933,490,005
1889.....	3,400,000,000	5,180,976,599	5,180,976,599	5,180,976,599	5,180,976,599

In the first five years of this period the mileage increased 40,759 miles, or more than 48 per cent., while the capital investment increased \$2,804,381,537, or 57.5 per cent., this increase consisting of an increase of 57.1 per cent. in capital stock 58.2 per cent. in funded debt, and 56 per cent. in other forms of indebtedness.

In the five years ending with 1889 railroad mileage increased 36,244 miles, or 29.8 per cent. Capital investment in-

creased \$2,004,543,195, or 26.1 per cent. This increase in investment consisted of an increase of 19.5 per cent. in capital stock, 31.6 per cent. in funded debt, and 46.1 per cent. in other forms of indebtedness.

The following statement will show the volume of freight traffic on all the railroads of the United States during eight years, 1882-1889:

Years.	Tons.	Tons freight moved one mile.	Aver. rate per ton per mile.	Aver. haul per ton.
1882.....	350,490,375	39,302,279,249	1.236	109.02
1883.....	400,453,439	44,664,923,445	1.236	110.04
1884.....	399,074,749	44,725,277,077	1.124	112.07
1885.....	437,040,099	49,151,891,469	1.057	112.46
1886.....	432,245,754	52,602,070,589	1.042	109.99
1887.....	552,174,712	61,561,069,998	1.034	111.51
1888.....	590,557,353	65,423,005,988	0.977	110.72
1889.....	619,137,337	68,604,012,396	0.976	110.50

From this statement it appears that in the eight years the tonnage increased 258,646,862 tons, or 72 per cent. In the same period the mileage of lines in operation increased 56,936.71 miles, or 59 per cent. Computed on the basis of tonnage, per mile of road, the traffic of 1882 was 3.650.5 tons per mile; of 1883, 3.744.7 tons per mile; of 1884, 3.526.2 tons per mile; of 1885, 3.578.6 tons per mile; of 1886, 3.853.4 tons per mile; of 1887, 4.030.1 tons per mile; of 1888, 4.065.3 tons per mile, and of 1889, 4.054.8.

It will be observed that the downward tendency of freight rates is as yet unchecked. When the Manual first, in 1882, began the comprehensive tabulations of railroad statistics, which have since become such an important feature of its introductory articles, it was shown that the total tonnage mileage of all the railroads equalled, in 1882, 39,302,209,249, and that the average rate of transportation per ton per mile was 1.236 cents. From that time to the present, the decline has been steady, until in 1888 it sank below the rate of one cent per ton per mile. In the seven years from 1883 to 1889 inclusive, the tonnage mileage of the railroads of the United States has been 386,332,184,500. Had the rates of transportation that prevailed in 1882, viz., 1.236 cents per ton per mile, been maintained during all this time, the earnings of the railroads of the country from freight transportation for the seven years would have reached \$4,775,065,800, instead of the amount actually received, \$4,041,269,441, a difference in favor of the railroads of nearly \$734,000,000.

Statement of the rolling stock of railroads in the United States:

Locomotive Year.	Engines.	Passenger.	Freight.	Baggage.	Mail and Express.	Total.
1877.....	15,911	12,053	5,884	392,175	408,082	408,082
1878.....	16,445	11,683	4,413	423,013	439,109	439,109
1879.....	17,084	12,009	4,519	480,190	496,718	496,718
1880.....	17,949	12,769	4,780	539,255	556,930	556,930
1881.....	20,116	14,548	4,976	648,295	667,819	667,819
1882.....	22,114	15,551	5,566	730,451	751,508	751,508
1883.....	23,623	16,859	5,848	778,603	801,400	801,400
1884.....	24,597	17,303	5,911	798,399	821,613	821,613
1885.....	25,937	17,993	6,041	855,919	878,551	878,551
1886.....	26,415	19,353	6,325	845,914	871,491	871,491
1887.....	27,643	20,457	6,554	950,887	977,898	977,898
1888.....	29,338	21,425	6,847	1,005,116	1,033,368	1,033,368
1889.....	31,062	23,465	7,184	1,060,164	1,090,813	1,090,813

Statement showing the number of miles of steel rails and iron rails; also the percentage of steel rails to the total track in the United States, for the years 1880-89, inclusive:

Year.	Miles steel rails.	Miles iron rails.	Total miles.	Per cent. steel.
1880.....	33,680	81,907	115,587	29.1
1881.....	49,003	81,473	130,476	37.5
1882.....	66,691	74,369	141,060	47.3
1883.....	78,491	70,692	149,183	52.7
1884.....	90,243	66,254	156,497	57.6
1885.....	98,102	62,495	160,597	61.0
1886.....	105,724	62,324	168,048	62.9
1887.....	125,439	59,567	185,006	67.7
1888.....	138,516	52,981	191,497	72.3
1889.....	151,723	51,664	203,387	74.4

THE Idler Gold Mining Co., of Marion, N. C., which has a capital stock of \$1,000,000, reports that it will soon purchase machinery for quartz mining, chlorination works, &c. Marion appears to be moving ahead quite rapidly.

Subscribe to the MANUFACTURERS' RECORD.  
Price \$4.00 a year, or six months for \$2.00.

## Southern Made Starch.

Every grocery and family supply store in the South keeps starch in stock. It is a staple of their trade. Every public laundry and individual washerwoman uses it in considerable quantities. Every family that lives decently keeps it in the store-room. The tons annually consumed in the South must run well up into tens of thousands. Where is all this starch made?

Recently the leading Northern manufacturers have organized something equivalent to a trust for the increase of their profits. The names of the concerns as published show that the members of this combine carry on business in the Middle, the Ohio Valley and some of the Western States. The only Southern manufacturers mentioned, so far as we have seen, are in Kentucky. Outside of that State and Virginia we have never heard of any starch manufactory in the South.

Recently a protest of importers was sent to the Senate committee on finance, to influence that powerful committee against features of the McKinley bill that they (the importers) did not approve. Among the signers were Chas. Morningstar & Co., importers of starch. That firm signed the following remarkable declarations:

There is not a single pound of dextrine manufactured in this country, for the reason that the raw material required is not grown here; that our farmers cannot raise enough potatoes for home food consumption, let alone for manufacturing starch and other products; that American potatoes will not produce the proper quality of dextrine; that the duty on starch, which at present rates is equivalent to 98 per cent., should be removed, because it is a raw material that should be entered free.

From colonial days until now starch has been made in this country. It was once a household product like soap, but for many years it has been manufactured on a large scale at many different places. Those splendid housekeepers who directed the family economies of Southern plantations half a century ago, used to superintend the making of starch out of Irish potatoes, wheat bran or roasting ears, according to the season, and never bought any from the stores. That domestic manufacture, like many others, ceased when slavery was abolished, but there are thousands of Southerners in prime of life who remember distinctly how regularly starch making entered into the routine of household work.

Why not introduce starch factories among the new Southern industries, and so add to their diversity, and at the same time become independent of trusts and combines organized by long-established concerns? The South produces corn, wheat, Irish potatoes and other starch-containing articles. Above all else it is the country for sweet potatoes. Its light lands often yield several hundred bushels an acre of this tuber at a minimum cost for seed, cultivating and gathering. Some varieties of this vegetable are said by chemists to

carry more starch to the pound than any other known product of nature. The processes of starch manufacture are simple and easily acquired. The cost of a plant of moderate size is little as compared with that of most other manufacturing industries. The market for the article is unlimited. There are few things in which a small capital can be more profitably employed in the South than the manufacture of starch.

### To Connect Us With South America.

"Blaine is deeply interested in the success of his South American mail and railway connections."

"What do you know about that design?"

"I know all about it. A Mr. Parsons, who lives in Virginia, but is a Northern man, has put the thing into shape. It seems that each of the South American governments has already made the surveys to locate a railroad from the Caribbean sea in Colombia over the fertile and healthy plateau of the Andes to Bolivia, where the Chilian railroad system is already built over into the Argentine confederacy, where their railway system is likewise established. The idea is to make the American railway system which ends at Tampa, in Florida, connect with this new railroad to be built lengthwise through South America, and to have fast steamers connect our system with that one, so that all the mail service of South America will go through the United States."

"What will such a railroad cost?"

"About \$100,000,000. It will cost about as much as the original Pacific Railroad, and the idea is to get the credit of the different governments through which this system runs, when it is supposed that with the United States backing the enterprise, capital will be readily forthcoming. The subsidy and bounty bills introduced into Congress to assist navigation are to be subordinate to this general idea. The idea is that we can take up all of South America, of Central America and of the West Indies."

"Do you think that the time is now ripe for the revival of American steam commerce?"

"It unquestionably is, for the reason that we have now finished our first railroad systems. We left the sea at the close of the civil war because our railroads were very imperfect, and we had the interior of the continent to develop. We have gone on at this business for full twenty-six years, and have got all the railroads we require. What are being built now are mere accessory lines or way links. The money has been promptly forthcoming to build these railroads, and they require so much that we had no money to spend upon ship-building. In the meantime our ship-yards have gone on increasing in number and extent until they are found on the lakes in New England, in the Middle States and on the Pacific. We can now build any kind of ship in this country, and have plenty of skilled labor and all the improved facilities which they possess in Scotland or England for the purpose. Besides, the rate of interest upon the investments ashore is diminished to that figure that we would now be glad to get some of the business of the high seas, which is not as remunerative as is generally supposed. Five per cent. would not tempt our capitalists ten or fifteen years ago. Now they would be glad to get that amount of return. The great drain of specie from America is toward the tropics. Europe exchanges with us, and we generally have a balance of trade against her. But in those South American States where we have no agencies and have made no markets, we take coffee, sugar, etc., and as we send no goods there, we pay for these things in cash. I understand that a large excursion party is to go this summer or fall to Colombia and pass over the route of this railroad."—Gath, in Cincinnati Enquirer.

The Mr. Parsons mentioned by "Gath" is Col. H. C. Parsons, of Natural Bridge, Va., a personal friend of Mr. Blaine. Col. Parsons sent out a preliminary prospectus of this proposed railroad and steamship enterprise some months ago, which was noticed at the time in the MANUFACTURERS' RECORD. The establishment of this steamship line and the building of this railroad would prove of inestimable value to the South.

## MACHINERY WANTED.

If you desire to purchase machinery of any kind consult our advertising columns, and if you cannot find just what you wish, send us particulars as to the kind of machinery needed. We will make your wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. You will thus get all information desired as to prices, etc.

Artesian Well.—Ed. Fewell, Rock Hill, S. C., wants information, etc., concerning the sinking of an artesian well.

Ammonia Machinery.—Benjamin & Gronheim, Atlanta, Ga., want to correspond with parties making machinery for the manufacture of anhydrous and aqua ammonia.

Barrel and Stave Machinery.—W. A. Turner, Newnan, Ga., wants information and prices on spoke and axe-handle machinery, lathes for turning hubs; also machine for splitting wood for burning in staves after sawing 12 to 18 inches in length.

Barrel Machinery.—C. A. Cowart, Luverne, Ala., will purchase barrel machinery.

Belting.—J. N. Kennedy, Thomasville, N. C., wants prices on belting.

Bicycles.—Lawson Chase, Florence, S. C., wants to correspond with parties manufacturing bicycles with a view to making contract for building cycles according to a newly patented invention.

Blacksmith Machinery.—The Hess Manufacturing Co., Westminster, Md., wants to purchase blacksmith machinery.

Boiler and Engine.—The Chattanooga Powder Co., Chattanooga, Tenn., wants 2 75 horse-power automatic steam engines and 2 100 horse-power tubular boilers. Address care of Samuel Newton, Xenia, Ohio.

Boiler and Engine.—The Little Bros. Fertilizer & Phosphate Co., Jacksonville, Fla., will purchase 60 horse-power boiler and 50 horse-power engine.

Boilers.—T. B. Ripy, Tyrone, Ky., wants to purchase boilers.

Boilers, etc.—F. F. Wright, Peoria, Ill., wants prices on boilers and fittings.

Boilers and Engines.—The Louisiana Compress Co., Ruston, La., wants boilers and engines.

Boilers and Stacks.—The Goshen Rolling Mill Co., 416 and 420 Walnut street, Philadelphia, Pa., wants to purchase boilers and stacks for its rolling mill to be erected at Goshen Bridge, Va.

Brewery.—The Jackson Brewing Co., New Orleans, La., wants all machinery appertaining to a 100-barrel brewery. Address Louis Imholte, secretary.

Cars.—John McDuffie, Fayetteville, N. C., wants to purchase 20 lumber cars for 3-foot gauge track.

Chair Machinery.—L. B. Whatly, Attalla, Ala., wants to purchase machinery for making chairs.

Corn Sheller.—J. A. Kennedy, Thomasville, N. C., wants to purchase a corn sheller.

Creamery.—S. P. White, Pulaski, Tenn., wants to correspond with parties concerning creamery supplies.

Dies.—J. M. Jewell, Southern Pines, N. C., desires to correspond with parties making dies for pressing seamless tin boxes.

Distillery.—T. B. Ripy, Tyrone, Ky., wants distillery machinery.

Dry-kilns.—Stratton & Stratton, Johnson City, Tenn., intend purchasing dry kiln outfit.

Dry-kiln.—John McDuffie, Fayetteville, N. C., will purchase a dry-kiln outfit.

Electric Plant.—The Greensboro Female College, Greensboro, N. C., wants electric light plant. Address J. A. Odell, secretary and treasurer.

Engine.—F. G. Spacy, Gaffney City, S. C., wants to correspond with parties relative to the purchase of a steam fire engine.

Engine.—N. J. Lillard, Creston, N. C., will purchase a 3 or 4 horse-power horizontal engine with governor and fittings, center draft, etc.

Engine.—The Ohio Valley Improvement & Contract Co., Louisville, Ky., wants to purchase either a new or second-hand engine for immediate service in laying track and other construction purposes.

Engine.—The Hess Manufacturing Co., Westminster, Md., wants to purchase a gasoline engine.

Engines.—John McDuffie, Fayetteville, N. C., wants to purchase engines for wooden tramway.

Engines.—F. F. Wright, Peoria, Ill., wants prices on portable and stationary steam engines.

Engines.—The Goshen Rolling Mill Co., 416

and 420 Walnut street, Philadelphia, Pa., will purchase engines for its rolling mill to be erected at Goshen Bridge, Va.

Fertilizer Machinery.—L. B. Whatly, Attalla, Ala., desires to buy machinery for the manufacture of fertilizers.

Fertilizer Mill.—George N. Reed, Reedville, Va., wants a mill to grind fish scrap.

Fertilizer Mixers.—The Little Bros. Fertilizer & Phosphate Co., Jacksonville, Fla., will purchase fertilizer mixers.

Furnaces.—The Goshen Rolling Mill Co., 416 and 420 Walnut street, Philadelphia, Pa., wants furnaces for its rolling mill to be erected at Goshen Bridge, Va.

Gearing.—J. A. Kennedy, Thomasville, N. C., wants to purchase mitre gearing for running burrs.

Gearings.—The Louisiana Compress Co., Ruston, La., will purchase quite an amount of gearings.

Grist and Flour Mill.—L. B. Whatly, Attalla, Ala., wants grist and flour mill machinery.

Heating Apparatus.—The Greensboro Female College, Greensboro, N. C., wants heating apparatus. Address J. A. Odell, secretary and treasurer.

Ice Factory.—Ed. Fewell, Rock Hill, S. C., wants prices on machinery for ice factory.

Ice Machine.—A 10-ton ice machine will be purchased at Dawson, Ga. Address Hon. W. B. Cheatham.

Ice Machine.—D. B. Bradford, Elizabeth City, N. C., wants to correspond with parties making ice machines.

Ice Machine.—D. H. King, Winston, N. C., will purchase an ice machine.

Ice Machinery.—Jack Bisland, Houma, La., wants to correspond with parties making ice machinery.

Ice Machinery.—J. F. Woodward, Warsaw, N. C., wants to correspond with manufacturers of ice machinery.

Iron Columns, Cornices, Girders, etc.—Jacob S. Allen, Wilmington, N. C., wants prices on iron columns, cornices, girders, etc.

Iron-working Machinery.—F. F. Wright, Peoria, Ill., wants prices on iron working machinery, supplies, etc.

Lathe.—The Simmerly Derrick Co., Cleveland, Ohio, will purchase second hand lathe, 36 or 40-inch swing, that will take in 12 or 14 feet between centers.

Lime Machinery.—C. A. Cowart, Luverne, Ala., will purchase machinery for burning lime and sawing lime marl for building purposes.

Locomotive.—Hough & Bennett, Ellisville Depot, Miss., may purchase locomotive for tram-road.

Ochre Machinery.—G. S. Patterson, Anniston, Ala., wants prices on machinery for washing and preparing ochre.

Phosphate Machinery.—John L. Hammond, Savannah, Ga., wants prices and information on phosphate machinery.

Phosphate Machinery.—L. N. Cugler, secretary South Florida Phosphate Co. and Blue Rock Phosphate Co., Covington, Ky., wants prices on phosphate machinery.

Phosphate Mills.—The Little Bros. Fertilizer & Phosphate Co., Jacksonville, Fla., wants phosphate mills.

Pipes.—Hon. W. L. Vost, mayor, Wytheville, Va., wants prices on pipes of different sizes to be used in the extension of the water works system.

Planing Mill.—The Southern Lumber Co., Atlanta, Ga., wants prices on machinery for planing mill.

Planing Mill.—Stratton & Stratton, Johnson City, Tenn., intend purchasing planing mill outfit.

Powder Mill Machinery.—The Chattanooga Powder Co., Chattanooga, Tenn., wants powder mill machinery, including wheel mills, corning mills, hydraulic presses, etc. Address care of Samuel Newton, Xenia, Ohio.

Power.—The Chattanooga Powder Co., Chattanooga, Tenn., wants information regarding transmission of power, one line over 1,000 feet and another over 2,000 feet from engine. Address care of Samuel Newton, Xenia, Ohio.

Pulleys.—The Little Bros. Fertilizer & Phosphate Co., Jacksonville, Fla., wants to purchase pulleys.

Pumping Engine.—The Alabama Nursery Co., Huntsville, Ala., wants a pumping engine, probably 2 or 3 horse-power, to pump water from a 90-foot well.

Rails.—Hough & Bennett, Ellisville Depot, Miss., will purchase rails for tram-road.

Roll Trains.—The Goshen Rolling Mill Co., 416 and 420 Walnut street, Philadelphia, Pa., wants prices on roll trains for its rolling mill to be built at Goshen, Va.; also for complete rolling mill outfit.

Roofing Scales.—The Louisiana Compress Co., Ruston, La., wants roofing scales.

Saw Mill.—The Southern Lumber Co., Atlanta, Ga., wants prices of saw mill machinery.

Saw Mill.—Stratton & Stratton, Johnson City, Tenn., intend purchasing a saw mill outfit.

Saw mill Machinery.—F. F. Wright, Peoria, Ill., wants prices on saw-mill machinery.

Scales.—J. A. Kennedy, Thomasville, N. C., wants prices on scales.

School Furniture.—Burgess Smith, Atlanta, Ga., wants prices on school furniture.

Shafting.—The Little Bros. Fertilizer & Phosphate Co., Jacksonville, Fla., will purchase shafting.

Spinning and Twisting Machinery.—Stimpson & Steele, Turnersburg, N. C., will purchase spinning and twisting machinery for their cotton mill.

Spoke Lathes, etc.—A. Blumer & Sons, Mossa Point, Miss., will purchase one or more spoke lathes and all necessary machinery for turning out a complete spoke.

Stand-pipe.—Whitehead & Stancil, Dublin, Texas, are in the market for stand-pipe.

The Creston Manufacturing Co., Creston, N. C., may want a stationary engine with boiler and fittings, 5 or 6 horse-power.

Water Works.—Whitehead & Stancil, Dublin, Texas, will purchase fixtures for water works.

Woodworking Machinery.—The Staunton Building Co., Staunton, Va., wants woodworking machinery. Address Wm. H. Cather, director.

Woodworking Machinery, etc.—F. F. Wright, Peoria, Ill., wants prices on woodworking machinery and supplies.

Woodworking Machinery.—The Hess Manufacturing Co., Westminster, Md., wants machinery for woodworking shop.

### Shenandoah, Va.

This is the town which Mr. D. W. Flick-wir, the superintendent of the Shenandoah Valley Railroad, is so much interested in that a report has been going the rounds to the effect that he had resigned his position in order to devote his entire time to promoting its progress. While Mr. Flickwir has never so much as considered such a thing as resigning the superintendency of the Shenandoah Valley Railroad, it is a fact that he is more heavily interested in this town of Shenandoah than in any other, and without interfering with his official duties, he will doubtless lend his valuable aid to the work of making it a success. He, however, is not the only prominent railroad man who will help to transform the village of to-day into the city of tomorrow, for among the stockholders in the Shenandoah Land & Improvement Co. are such names as F. J. Kimball, the president of the Norfolk & Western; Mr. Sands, the general manager of the same road; Mr. McDowell, treasurer of the Norfolk & Western, and Mr. Armes, the treasurer of the Shenandoah Valley, to say nothing of Col. John M. Robinson, president of the Seaboard & Roanoke, and Mr. Geo. F. Tyler. Aside from railroad men, there are among Shenandoah's backers a number of others whose names carry great weight. Mr. Clarence H. Clark, of Philadelphia, for instance; Arkell, of Judge; Mr. Jacob H. Schiff, a New York banker; F. F. B. Sands, R. E. Dulaney and Guy Whiting, of Washington, D. C.; Governor Hill's law partner (whose name has escaped my memory), and last, but not least, P. L. Terry, H. S. Trout and Con O'Leary, of Roanoke, Va.

Thus Shenandoah has the first requisite of success—the right kind of men behind it. In natural advantages and available resources it is more famous than many of its rivals, while the fact that it has already the shops of the Shenandoah Valley Road, a furnace now in blast and a big rolling mill under contract, gives it the start of most of them by a good many lengths. That it will have superior railroad connections is virtually guaranteed.

Mr. C. Powell Noland is president of the Shenandoah Land & Improvement Co., and he impresses me as being among the most wide-awake, clear-headed and energetic of the score or so of "native to the manor born" Virginians whom this wonderful era of industrial activity is bringing to the front all along the line. He is now hard at work, assisted by J. F. Wheelwright, the company's secretary, getting things in order for the growth of the town. The new streets are being graded and work on a handsome new hotel—a charming conception by Poindexter—is about to begin.

THOMAS P. GRASTY.



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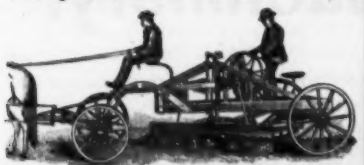
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Extension truss, to drive from one bent to another. 20 feet lateral swing, 9 feet from center. Fitted up with our new-style Namyth Steam Pile Drivers.  
**VULCAN IRON WORKS, CHICAGO.**



### WANTS.

**WANTED.**—Competent Superintendent to take charge of a contract machine shop. Reply must state salary expected, and giving references. Address P. O. BOX 75, Knoxville, Tenn.

**WANTED.**—A position as Superintendent and Refiner with cotton-seed oil manufacturer. Have had ten years' experience and thoroughly understand the business. Address "COTTON-SEED," Drawer No. 375, Birmingham, Alabama.

**FAMILIES** of Cotton Mill Operators who desire steady work in a new modern ginning mill South, address R. GREEK, Vice-President Columet Cotton Factory, Mammoth Spring, Ark. Fine climate cheap homes and cheap living, and we pay Eastern wages.

### WANTED.

## PLANS FOR MILLS.

Saw Mill, Cotton Mill and Oil Mill Millwrights, send us your best, full and specific plans and drawings for the above-named mills and approximate time for erection of same. We have many enquiries for millwrights. Address **MARINETTE IRON WORKS CO.,** Saw Mill and Mining Machinery, Atlanta, Ga.

## For Sale.

**A PORTER-ALLEN**

## High Speed Automatic Engine.

80 H. P. Cylinder 9x16 inches.

Used short time in United States Mint. Equal to new. No finer engine built suitable for electric lighting. At a bargain. Address

**FRANK TOOMEY,** 131 N. 3d Street, PHILADELPHIA, PA.

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On account of the death of the head of our concern, we wish to sell our entire stock of Machinery and Implements, good will and charter. We have been established since 1876, and have the reputation of being the largest dealers in the State. Will sell on easy terms.

**W. A. HUFFMAN IMPLEMENT CO.**  
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Cast Iron Gas and Water Pipe and Castings  
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**FREIGHT CARS, CAR WHEELS, BAR IRON,  
SPECIAL CASTINGS.**

### PROPOSALS.

#### SEWER PIPE.

**SEALED PROPOSALS** will be received by the Sewerage Committee of the Board of Aldermen of the city of Greensboro, N. C., until 10 o'clock A. M., of August 6th, 1890, for furnishing about 2 1/2 miles of Sewer Pipe, from 10 to 20 inches diameter, and fittings for same. Specifications, approximate quantities, etc., may be obtained from the Chairman of the Sewerage Committee or the Engineer. The right is reserved to reject any or all bids.  
J. L. LUDLOW, Engineer.  
WM. M. HOUSTON, Chair, Sewerage Committee.

#### NOTICE TO CONTRACTORS.

**SEALED PROPOSALS** will be received by the Sewerage Committee of the Board of Aldermen of the city of Greensboro, N. C., until 10 o'clock A. M. of said city until 10 o'clock P. M. of Thursday, August 21st, 1890, for constructing a part of the proposed system of pipe sewers for said city. Copies of the general plans and specifications, forms of proposals and instructions to contractors, and any information relative thereto, may be obtained from the Chairman or Engineer of the Sewerage Committee. The Committee reserves the right to reject any or all bids.  
J. L. LUDLOW, Engineer.  
WM. M. HOUSTON, Chair, Sewerage Committee.

**NOTICE TO BUILDERS.**—Sealed Proposals will be received until 12 o'clock M., on the 15th day of August, 1890, for furnishing all material and labor required in building the new city hall and market house of the city of Danville, Va., in accordance with the drawings and specifications which can be seen at the office of the City Engineer in Danville, or at the office of Mr. W. M. Polindexter, 1395 Pennsylvania avenue, Washington, D. C. Each bid must be accompanied with a certified check of (\$250 two hundred and fifty dollars, made payable to the treasurer of this city, as a guarantee that if the bid is accepted, a contract will be entered into and bond with satisfactory security given. The committee reserves the right to reject any or all bids. Direct all communications to "Captain John G. Covington, chairman of committee on new market."  
C. A. BALLOU, City Engineer.

**SEALED PROPOSALS** will be received at the office of the Supervising Architect, Treasury Department, Washington, D. C., until 10 o'clock P. M. on the 7th day of August, 1890, for all the labor and materials required to complete the plumbing for the U. S. Courthouse and Postoffice at CHARLOTTE, N. C., in accordance with the drawings and specification. Each bid must be accompanied by a certified check for \$100. The Department will reject all bids received after the time fixed for opening the same, also bids which do not comply strictly with all the requirements of this invitation. Proposals must be sealed and endorsed "Proposal for Plumbing for the U. S. Courthouse and Postoffice at Charlotte, N. C.," and addressed to JAS. H. WINDRIM, Supervising Architect. July 24th, 1890.

**SEALED PROPOSALS** will be received at the office of the Supervising Architect, Treasury Department, Washington, D. C., until 10 o'clock P. M., on the 16th day of August, 1890, for all the labor and materials required for the approaches to the United States Postoffice, Customhouse, and building at WILMINGTON, N. CAROLINA, in accordance with the drawing and specification, copies of which may be had on application at this office or the office of the Superintendent. Each bid must be accompanied by a certified check for \$500. The Department will reject all bids received after the time fixed for opening the same, also bids which do not comply strictly with all the requirements of this invitation. Proposals must be sealed and endorsed "Proposal for the Approaches to the U. S. Post-office, Customhouse, &c., building at Wilmington, N. C., and addressed to JAS. H. WINDRIM, Supervising Architect. July 22d, 1890.

**SEALED PROPOSALS** will be received at the office of the Supervising Architect, Treasury Department, Washington, D. C., until 10 o'clock P. M., on the 8th day of August, 1890, for all the labor and materials required for the extension of the U. S. Postoffice, &c., building at Houston, Texas, in accordance with the drawings and specification, copies of which may be had on application at this office or the office of the Superintendent. Each bid must be accompanied by a certified check for \$100. The Department will reject all bids received after the time fixed for opening the same, also bids which do not comply strictly with all the requirements of this invitation. Proposals must be sealed and endorsed "Proposal for the Extension of the U. S. Postoffice, &c., building at Houston, Texas," and addressed to JAS. H. WINDRIM, Supervising Architect. July 15th, 1890.

**SEALED PROPOSALS** will be received at the office of the Supervising Architect, Treasury Department, Washington, D. C., until 10 o'clock P. M. on the 12th day of August, 1890, for furnishing all labor and material required for the erection and completion of the U. S. Courthouse and Postoffice building at Monroe, La., (except heating apparatus) including approaches, outhouse, &c., in accordance with the drawings and specifications, copies of which may be had at this office or the office of the superintendent. Each bid must be accompanied by a certified check for \$500. The Department will reject all bids received after the time fixed for opening the same, also bids which do not comply strictly with all the requirements of this invitation. Proposals must be sealed and endorsed "Proposal for the Erection and Completion of the U. S. Courthouse and Postoffice building at Monroe, La." and addressed to JAS. H. WINDRIM, Supervising Architect. July 16th, 1890.

**SEALED PROPOSALS** will be received at the office of the Supervising Architect, Treasury Department, Washington, D. C., until 10 o'clock P. M. on the 15th day of August, 1890, for all the labor and materials required for the excavation, concrete foundations, stone and brickwork of the basement and area walls of the U. S. Customhouse and Postoffice building at Eastport, Me., in accordance with the drawings and specification, copies of which may be had on application at this office or the office of the Superintendent at Eastport, Me. Each bid must be accompanied by a certified check for \$500. The Department will reject all bids received after the time fixed for opening the same, also bids which do not comply strictly with all the requirements of this invitation. Proposals must be sealed and endorsed "Proposal for Stone and Brickwork, etc., for Basement and Area Walls of U. S. Customhouse and Postoffice at Eastport, Me." and addressed to JAS. H. WINDRIM, Supervising Architect. July 15th, 1890.







**The Boughen Engineering Co.**

The advantage of dealing with as few persons as possible in the construction of large works is a fact now generally recognized by everybody, as it centralizes the responsibility for the correct working of each and every part of a plant. Manufacturers will not and cannot assume the responsibility of anything outside of their own make. This has led to the formation of companies whose business is the construction and erection of plants, assuming the responsibility of everything. This can be done, as the different manufacturers each guarantee their own goods, enabling these companies to make a general guarantee. The Boughen Engineering Co., of Cincinnati, O., was organized for this purpose, and although recently established, has already work enough on hand to keep them busy for some time to come, prospects for the future being as bright as could be asked. The company is composed of practical, energetic and pushing men of large and varied experience in the different departments of which they have charge. Mr. T. W. Boughen, president of the company, was for upwards of twenty years superintendent of the Gordon Steam Pump Co., of Hamilton, O., and has been connected with the establishment of about one hundred water works plants, and built several thousand pumps. Mr. W. C. Murray, vice-president, has been in business for himself for a number of years in brick and stone work, sewer and pipe-laying and general mechanical work. Mr. F. B. Leopold, secretary, has occupied the position of secretary and treasurer for the Cincinnati Screw & Tap Co. until recently. Mr. J. H. McCabe, treasurer, has been the last eight years the representative of the Murphy Iron Works, of Detroit, Mich., and is a practical and experienced engineer. These, with R. B. Cullin, formerly superintendent of the Columbus Machine Works, compose the active members of the concern. They have very pleasant and commodious offices in the Glenn Building, corner Fifth and Race streets, Cincinnati, O. Besides making a specialty of steam power and water works plants, they also do a general business in engines, boilers, furnaces, heaters and pumping machinery and supplies. Being general agents for the central States of some of the largest and best known manufacturers in the country of their different lines, they are prepared to furnish plans, estimates, and take complete contracts. Anybody contemplating improvement or the erection of new plants will do well to call on them.

**TRADE NOTES.**

THE Ellrich Hardware Manufacturing Co., of Plantsville, Conn., have recently issued a new catalogue which will be sent free on application. They call particular attention to the steel-cap chisel handle and the lightning nail puller, illustrated on pages 24 and 25. It is claimed by the manufacturers that the chisel handle is meeting with the approval of all users.

THE Laidlaw & Dunn Co., of Cincinnati, Ohio, are exceptionally busy, and have lately added a considerable quantity of large new tools to their works. They have been running part of the time night and day. They are nearly three months behind orders in their pump department, and also in their line of plug-tobacco machinery. Having lately taken some large orders, their full capacity is tested in both branches.

AMONG other testimonials as to the merits of Bonnell's Nubian iron enamel, made by the Nubian Iron Enamel Co., Sangamon and Jackson streets, Chicago, is one from the chief engineer of the large meat packing plant of Libby, McNeil &

Libby, Chicago, speaking in the highest terms of the goods. He also seems to think their pipe cement is the best substitute for red lead he has ever tried for pipe joints. The firm makes some strong claims which, if true, are worth investigating.

THE Buffalo Forge Co., of Buffalo, N. Y., manufacturers of heating and ventilating apparatus for mills, factories, public buildings, etc., have recently received flattering letters of commendation from the following parties, who are using their system of heating and ventilation: The Cramer & Scott Co., Indianapolis, Ind.; the Duncan Salt Co., Silver Springs, N. Y.; Quick Meal Stove Co., St. Louis, Mo.; Binghamton Wagon Co., Binghamton, N. Y.; Western Wheel Co., Chicago, Ill.; J. A. & D. P. Cooper, Struthers, Ohio; George N. Pierce & Co., Buffalo, N. Y.

COTTON mill property, consisting of 26 acres of land, three-story brick building 150x50 feet, engines and all necessary machinery in good order, ready to start up, with tenement houses, is advertised in this issue at chancery sale on September 1st, 1890. The property is situated on two railroads, giving ample transportation facilities, and with competitive freight rates. An abundance of raw material is grown in the vicinity. The product of the mill is yarn, osnaburgs and sheetings. This is an opportunity for a practical man to secure a well-located business. Careful investigation invited. Address J. Y. Robb.

THE New England Steam Cooperage Co., 160 Whitehall street, Boston, Mass., in sending out its illustrated catalogue announces that it is now located in a new factory, which gives unsurpassed facilities for turning out first-class cooperage work in all lines at short notice. By reason of the long experience of the officers of this company, they have been enabled to procure the machinery and tools best suited to such establishments, and have made it a point to get only the highest grade and latest improved outfit in every department. Careful consideration has been given to economy in handling the material; thus a superior article is produced at a minimum of cost. The catalogue gives the capacity of different sizes of round tanks and other information of value, and will be sent free on application. This company makes a specialty of tanks for railroads, paper, cotton and woolen mills, bleacheries, dye-houses and for all manufacturing purposes.

*If you wish to keep posted on the progress of the South, read the MANUFACTURERS' RECORD. Price \$4.00 a year.*

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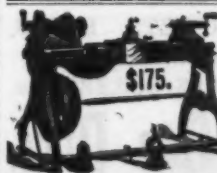
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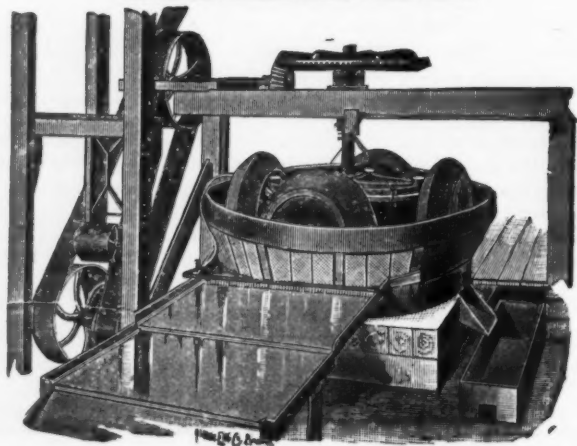
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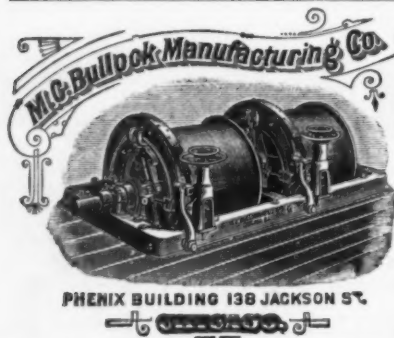
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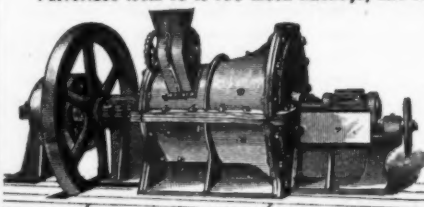
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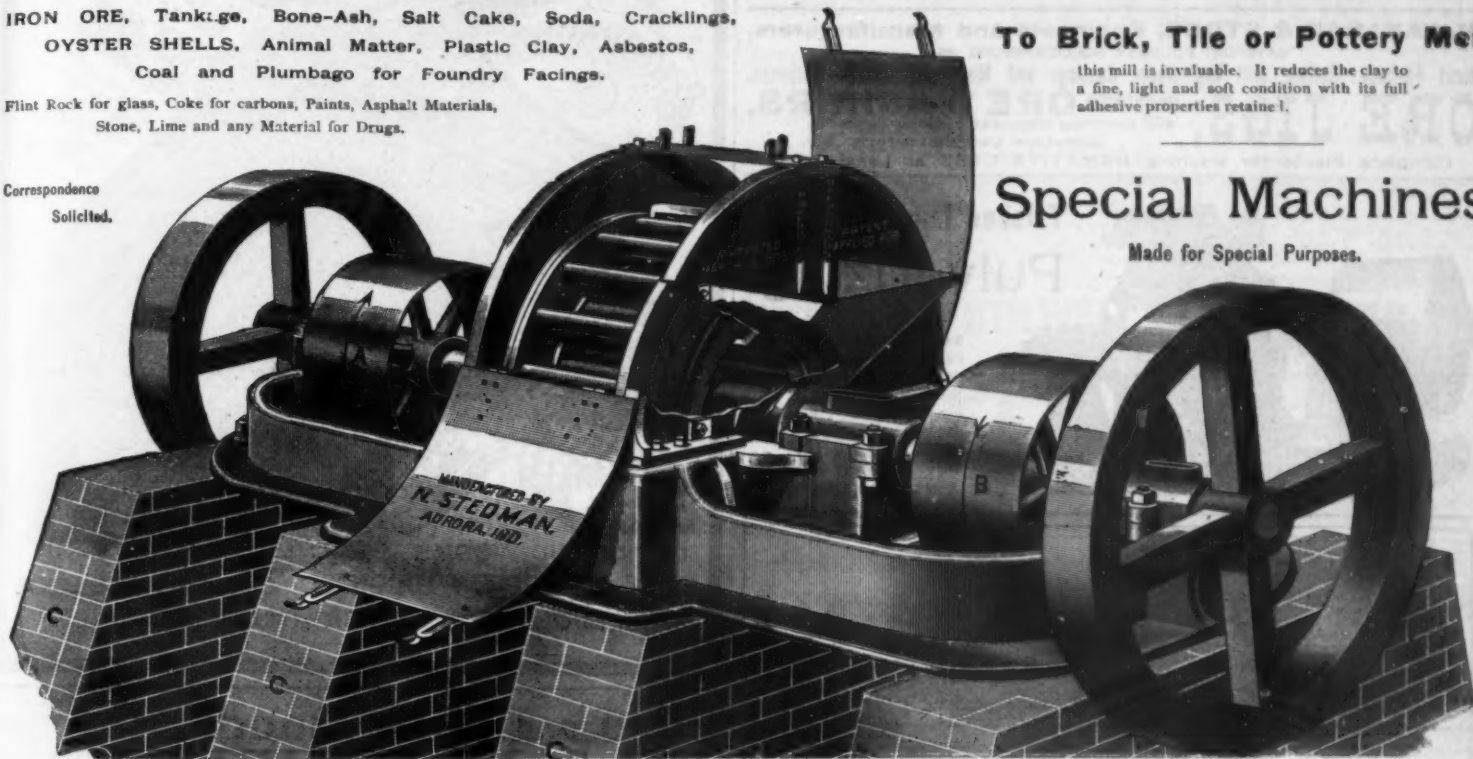
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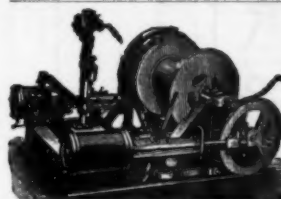
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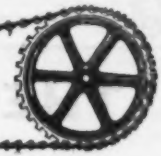
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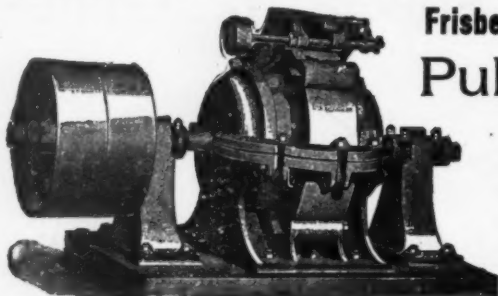
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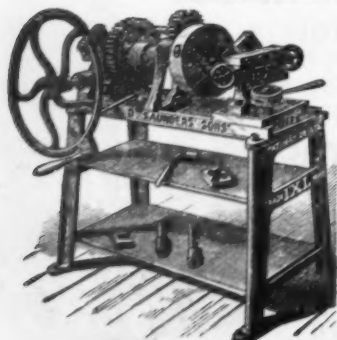
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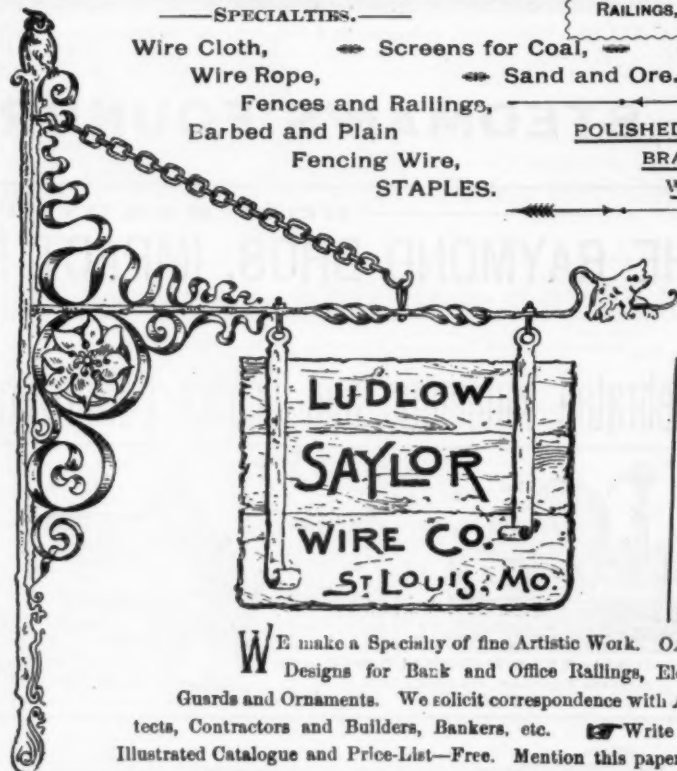
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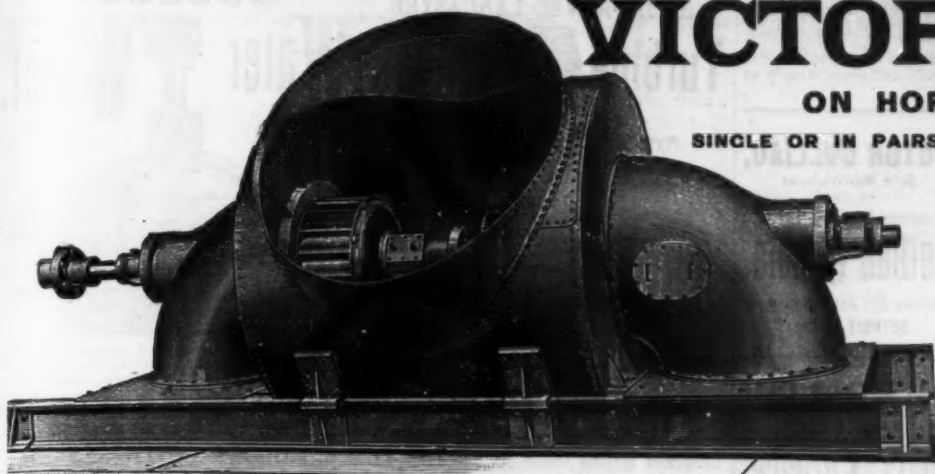


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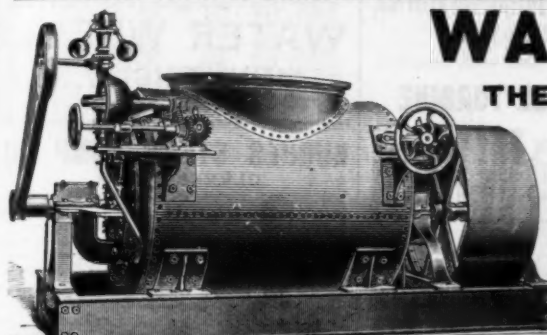
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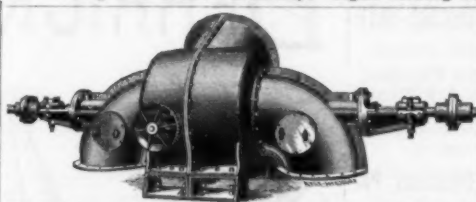
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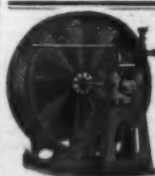
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CATALOGUE FREE. GEO. P. CLARK, Box C, Windsor Locks, Ct.

## TRADE NOTES.

THE Rogers drive screws are proving very popular and are having a large sale, their low price being a strong point in their favor. They are manufactured by the American Screw Co., of Providence, R. I., which is prepared to furnish them in all leading sizes from  $\frac{1}{4}$  of an inch up to  $\frac{3}{4}$  inches.

OSGOOD & THOMPSON, of Binghamton, N. Y., manufacturers of the popular Osgood standard scales, report a larger demand during the current season for their 3-ton cotton gin scales than ever before. Every gin not supplied should have one, and good live agents will find handling these goods profitable. A copy of catalogue is furnished free on application.

JAMES SUTHERIN, of East Palestine, O., operating coal mines on the P., F. W. & C. Railway, has just closed a contract with the Jeffrey Manufacturing Co., of Columbus, O., for one of their electric coal mining plants. It will consist of three Jeffrey electric coal cutters, with dynamo, engines and boilers. This will make the second plant of the Jeffrey electric coal mining machines in that neighborhood.

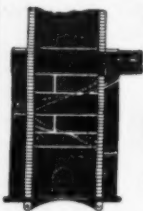
THE patent draw-lug and bolt, manufactured by the Winship Machine Co., of Racine, Wis., is being extensively used by tank manufacturers, brewers, vinegar factories and others, and is said to be giving good satisfaction. Some of the advantages claimed for this draw-lug are—it will hold firmly, cannot tip when down, and will stand heavy pressure; no riveting of hoops, thus securing full strength of band.

THE Aerated Fuel Co.'s system has recently been placed in the works of the Keystone Watch Case Co., 19 Brown street, Philadelphia, Pa., for melting brass, copper and other metals in crucibles, and also for annealing and other lines of work. In melting metals in crucibles it is found that the melts can be obtained in considerably shorter time than with a coal fire, besides the other advantages attendant on oil fuel.

AMONG the recent sales of elevators by the Salem Foundry & Machine Shop, of Salem, Mass., may be noted the following: Sewall & Day Cordage Co., Boston, Mass.; Cornell Mills, Fall River, Mass.; Berkshire Cotton Manufacturing Co., Adams, Mass.; Salem Evening News, Salem, Mass.; Saunders Cotton Mills, Saundersville, Mass.; Newichawanick Co., South Berwick, Me.; Overman Wheel Co., Chicopee Falls, Mass. They report business as being uncommonly good for this time of the year.

COOK WELL CO.—The announcement of the Cook Well Co., of St. Louis, Mo., in its catalogue, says: "In introducing our catalogue we give to the public the practical results of twenty years' experience in procuring water by means of deep wells. The daily increase in the number of inquiries regarding the best means of obtaining a water supply has prompted us to complete this book as a helpmate to all who are in need of such. We have endeavored to enable every purchaser to determine exactly what material he needs—of our success let the public judge." This book is gotten up in handy shape and is brim full of valuable information to those interested in the subject of a pure and abundant water supply. The large number of references and strong letters of approval of Cook's system of tube wells given in this little volume is proof of the merits and advantages of this system of water supply, and that it is meeting with deserved success we note among these references and testimonials the names of a number of large Southern manufacturers in different lines as well as Southern cities.

The Cook system of wells is adapted to supplying cities, towns, railroads, hotels, breweries and all classes of manufactures with an abundant, pure and clear supply of water.



**VICTOR COLLIAU,**  
Sole Manufacturer  
OF THE  
Improved Patent HOT BLAST  
**Colliau Cupola.**  
Address 287 Jefferson Ave.  
DETROIT, MICH.



**The COLLIAU**  
PATENT  
**Cupola Furnace.**

Adapted to all Foundries,  
The Most Economical,  
The Lowest in Price.

MANUFACTURED EXCLUSIVELY BY  
**BYRAM & CO.**  
DETROIT, MICH.

**JAS. P. WITHEROW.**  
ENGINEER & CONTRACTOR,  
Furnace & Steel  
Plant Construction.  
PITTSBURGH, U. S. A.

Blast Furnaces and Steel Works designed and erected complete in every detail ready for operation. Special attention given to the manufacture of

HEINE  
Safety Water Tube Boilers.

Owning an extensive manufacturing plant, I can guarantee promptness in execution, and satisfaction in any contracts undertaken by me.

**Gordon, Strobel & Laureau,**  
(LIMITED),

ENGINEERS AND CONSTRUCTORS,  
PHILADELPHIA, PA.

**Blast Furnaces,**  
x **Steel Plants,**  
**Fire-Brick Stoves, x**  
x **Blowing Engines.**

We are sole manufacturers of the GORDON-WHITEWELL-COWPER FIRE-BRICK HOT-BLAST STOVE, and within four years have introduced them as follows:

Jefferson Iron Works, Ohio.....	4
North Chicago Rolling Mill Co., Ill.....	3
Joliet Iron & Steel Co., Ill.....	3
Missouri Furnace Co., Mo.....	2
Jupiter Furnace Co., Mo.....	3
Western Steel Co., Mo.....	3
Tenn. Coal, Iron & R. R. Co., Ala.....	15
Cleveland Rolling Mill Co., Ohio.....	4
Belmont Nail Co., W. Va.....	3
Sloss Iron & Steel Co., Ala.....	8
Ala. & Tenn. Coal & Iron Co., Ala.....	9
Nashville Iron, Steel & Charcoal Co., Tenn.....	4
Decatur Land, Iron & Furnace Co., Ala.....	2
N. Y. & Perry Coal & Iron Co., Ohio.....	2
Princess Furnace, Va.....	2
*Ironville Furnace, W. Va.....	2
Cornwall Anthracite Furnaces, Pa.....	4
Duluth Iron & Steel Co., Minn.....	3
Reading Iron Co., Pa.....	3
<b>Total .....</b>	<b>81</b>

## THE IMPROVED LANCASTER

## Turbine Wheel.

Write for Descriptive Catalogue.



Lancaster Turbine Wheel Co., Lancaster, Pa.

Rome Foundry & Machine Works,  
ROME, GA.

Manufacturers of the well known

DAVIS DOUBLE TURBINE

## Water Wheel



Beyond all question one of the best Wheels on the market, and is fully guaranteed.

Send for Illustrated Catalogue and Price List.

ALSO MANUFACTURE

Portable & Stationary Engines  
AND BOILERS.

Grist and Flouring Mill Machinery.

The Balanced Gate Turbine.



PAT. SEPT. 3, 1889.  
High Percentage,  
Great Simplicity,  
CLOSE FITTING  
—AND—  
EASY WORKING GATE  
Under all Circumstances.  
Sold under Full Guarantee at Low Prices.

Send for Descriptive Pamphlet.

CHRISTIANA MACHINE CO., Christiana, Pa.  
Makers of all kinds of Machinery for Transmitting Power. Perfect Goods Only.

Batts Patent Defferential Ho's'.

MANUFACTURED BY THE

Boston & Lockport Block Co.

162 Commercial St.  
BOSTON.

The chief merits of this hoist that we wish to bring to the public notice is that it only requires

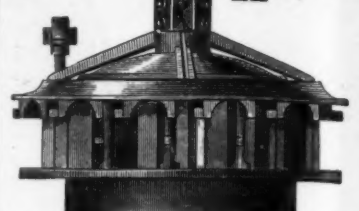
ONE MAN TO  
Hoist the Load.

It is also far more compact, taking up less room than any other make, and will hold the load at any point.  
Send for circular and prices.  
Every hoist warranted.



## SUCCESS

## Water Wheel.



This Wheel is strong and durable. Excelled all other wheels in the great trial tests. Is in use all over the nation. I also make a specialty of  
**HEAVY GEARING & MACHINERY**  
For Paper, Cotton and Grist Mills.

S. MORGAN SMITH, York, Pa.

**ALCOTT**  
IMPROVED TURBINE  
WATER WHEELS.  
MOUNT HOLLY, N. J.

**HUGHES STEAM PUMP CO.**  
CLEVELAND, O.

MANUFACTURERS OF  
Single, Duplex and Compound Pumps  
FOR ALL DUTIES.  
WATER WORKS PUMPING ENGINES  
SEND FOR CATALOGUES AND PRICE LISTS.  
J. H. HUGHES & SONS, NEW YORK AGENTS.  
T. R. WINDROVE, 324 NORTH ST.  
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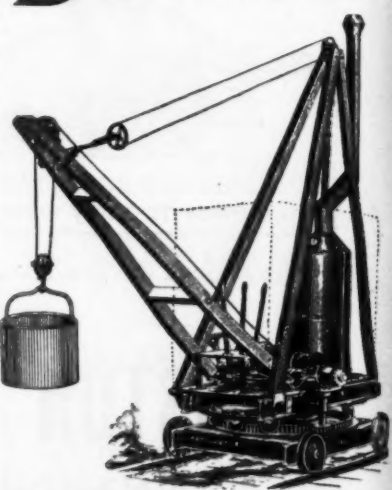


**DON'T BUY AN  
ENGINE  
—OR—  
BOILER**

Until you have seen our circulars. Engines complete from 5 to 110 horse power, both Vertical and Horizontal, at prices below those of other reputable makers. 1800 in use. Boilers of every style. Automatic Engines for Electric Lights. Centrifugal Pumping Machinery for Drainage or Irrigation. Established 25 years. Perfect satisfaction guaranteed. Ask for Circular M and address

**Morris Machine Works,**  
BALDWINVILLE, N. Y.

**THE SIMMERLY  
DERRICK.**



This is a revolving Derrick which makes a perfect circuit from either right or left. It can be worked from a lighter or Steamer same as on solid ground. It is adapted for the hoisting of stone, iron ore, coal or any material, and can be used with or without the bucket. Capacity in one lift ranges from one to five tons. Further particulars on application to

**Simmerly Derrick Co.**

101 Center Street, Cleveland, Ohio.



# FOR SUCH INDUSTRIES AS

COTTON MILLS,  
WOOLEN MILLS,  
TANNERIES,  
BOOT AND SHOE FACTORIES,  
HARNESS AND SADDLE FACTORIES,  
FURNITURE FACTORIES,  
CARRIAGE AND WAGON FACTORIES,  
FLOUR MILLS,  
GRIST MILLS,  
CRACKER FACTORIES,  
CANNING FACTORIES,  
COTTON SEED OIL MILLS,

# DALLAS, TEX.

Is equal to any locality  
in America in its  
combined advantages of  
**CHEAP AND  
ABUNDANT  
RAW MATERIAL  
READY,**

**PROFITABLE  
AND EXPANDING  
MARKET.**  
DISTRIBUTING FACILITIES,  
ELIGIBLE SITES,  
GOOD CLIMATE.

Any worthy industries  
will be aided liberally by the

## DALLAS MANUFACTURERS' AID & IMPROVEMENT CO.

711 Main Street, Dallas, Texas.

## BEDFORD CITY LAND & IMPROVEMENT CO.

# BEDFORD CITY, <sup>LAT</sup> LIBERTY, VA.

By special act of the Legislature of Virginia the Bedford City Land & Improvement Company was chartered with the most liberal grants of power. The company has been fully organized.

**AUTHORIZED CAPITAL - - - \$1,000,000.**

**JAS. M. BERRY**, (of Berry Bros., Tobacconists,) **President.**

**R. B. CLAYTOR**, (of R. B. Claytor & Co., Merchants) **Vice-President.**

**J. LAWRENCE CAMPBELL**, (of Burks & Campbell, Attorneys-at-Law,) **Secretary.**

**S. M. BOLLING**, (of Bolling, Wright & Co., Tobacconists,) **Treasurer.**

### BOARD OF DIRECTORS:

MARTIN P. BURKS,	R. B. CLAYTOR,	J. M. BERRY,
C. W. WHARTON,	J. LAWRENCE CAMPBELL,	T. D. BERRY,
S. M. BOLLING,	SAMUEL GRIFFIN,	W. W. BERRY,
DR. W. W. SMITH, President of Randolph-Macon College,	REV. A. E. DICKINSON, D. D., Editor of the Religious Herald, Richmond, Va.	

The Company is solvent and its business is conducted on the soundest business principles. It is not engaged in wild boomer.

Only \$300,000 worth of stock has been offered to the public.

The Company owns nearly 800 acres, containing the best residence, business and manufacturing sites. The stock which is offered is in ten-dollar shares, payable \$2 per share cash when subscribed, \$1 each thirty days thereafter, until \$5 is paid on the share. For this the Company issues paid up non-assessable certificates of stock. The money thus raised is to be applied to the improvement of the property.

Bedford City is not an old field, but a thrifty, growing community, in the most healthful and beautiful mountain region in Virginia.

Mean yearly temperature 53.7; Winter, 44; Summer, 78.

A few miles from the peaks of Otter, it would be difficult to exaggerate the exquisite beauty of the scenery and the tonic quality of the atmosphere. Within a days ride of Boston, New York, Philadelphia, and a few hours from Baltimore, it presents unusual advantages for health seekers.

The present population is nearly 4,000. There are 30 manufacturing enterprises, large and small, in operation, and 10 new secured with capital provided, which go into work as soon as buildings can be put up and the plants erected.

On the Company's lands are the elegant Randolph-Macon Academy, the largest school for boys in the South, and the Jeter Memorial Institute for young ladies, which will be commenced within six months. The Norfolk & Western R. R. Co. will build a fine passenger depot near a first-class hotel, to cost \$75,000. Poindexter, the architect of the Academy, is now preparing plans.

The Bedford City Company offers the most beautiful residence sites in the western part of the town, in which direction it is rapidly building.

This is the safest and best investment offered anywhere in Virginia. It is a golden opportunity to get property in a splendid section, as rich in minerals as it is healthful and magnificent in the grandeur of its mountains.

A new railroad from Glasgow to Atlanta will be built. Its construction will begin this year. For further particulars address

**J. M. BERRY.** President of Bedford City Land & Improvement Co., Bedford City, Va.

# GRAND AUCTION SALE OF LOTS

AT

## MARION, N. C.

THE MAGNETIC CITY OF THE MOUNTAINS.

Wednesday, Thursday and Friday,  
August 27, 28, 29, 1890.

The Largest Auction Sale of Lots ever held in the South.  
People will attend from all parts of the Union.

*CHEAP EXCURSION RATES ON ALL RAILROADS.*

Five Large Land Companies already Organized  
AND INCORPORATED TO PROMOTE THE INTERESTS OF MARION.

Choice Business and Residence Lots

WILL BE SOLD WITHOUT RESERVE.

Present Population 1,500 People.      Altitude 1,800 Feet.



Heretofore this, the Richest Country in Natural Resources on Earth, has had no Transportation Facilities, and has been inaccessible.

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Marion Soon will be the Only Point

IN

The Richest Iron Country in the World.

The Greatest Timber Country on Earth.

The Most Wonderful Marble Country in America.

The Finest Manganese Country known.

The Greatest Mica Producing Country on Earth.

The Richest Gold Mining Country east of the Mississippi River.

The Finest Talc Producing Country in the Union.

The Best Fruit and Stock Raising Country known.

The Best Farming Country in the World.

The Finest Climate on Earth.

The Finest Mountain Scenery in America.

That will have Cross and Competitive Railroads.

PLANT YOUR MONEY WHERE IT WILL GROW,

IN THE

Magnetic City of the Mountains.

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FOR PARTICULARS ADDRESS

Old North State Land Company,

MARION, N. C.

Co'. C. V. WALKER of Augusta, Ga., Auctioneer for the South.

Capt. JACK STEWART, of Kentucky, Auctioneer for the North.

# DENISON,

TEXAS.

THE  
Future Manufacturing and Commercial Center  
OF THE  
GREAT SOUTHWEST.

DENISON SUPPLIES THE COAL FOR TEXAS.

She has at her gates the only **COKING COAL** of any value in the Mississippi Valley. To the Southwest lies the best **MAGNETIC IRON ORE** in the world, while to the north and Southeast are fields of **BROWN HEMATITE ORE** of the finest grade. These ores must meet the **COKE** and **COAL** at **DENISON** and there to be worked.

**DENISON** cannot be surpassed for **HEALTHFULNESS** and **BEAUTY** of location. Six divisions of railways terminate at Denison and are operated by her citizens.

**DENISON** has an abundant supply of pure, soft water and plenty of good, cheap **BUILDING MATERIAL**.

The attention of investors and those seeking advantageous locations for business or for manufacturing plants is invited to the opportunities presented at Denison.

**MUNSON & BRO.** HAVE SUPERIOR FACILITIES FOR THE SAFE AND PROFITABLE INVESTMENT AND HANDLING OF CAPITAL.

For information about **DENISON** and for bargains in **BUSINESS** and **RESIDENCE PROPERTY**, **ACRE PROPERTY** and **FARMS NEAR THE CITY**, write or call upon

**MUNSON & BRO.**

301 WOODWARD STREET,

DENISON, TEXAS.

# Six Trunk Line Railroads at BESSEMER

✻ In the heart of Mineral Alabama, encircled with hills of Coal, Iron and Limestone Rock. ✻

"The South is the coming El Dorado of American adventure. May the Almighty speed and guide her onward progress!" So wrote the Hon. W. D. Kelley, M. C., of Pennsylvania, a few months ago, and every day brings forth new evidence to prove the correctness of his prediction and to show that without a doubt the South is to be the richest country upon the globe. In climate, soil, mineral and timber wealth, in rivers large and small, in a long seacoast, in abundant rainfall, in healthfulness and in every other advantage that could be asked nature seems to have done her best for this favored land. The wealth in iron and coal is beyond estimate. Of timber there is an unlimited supply, including nearly every variety of hardwoods for woodworking purposes.

WHERE  
MONEY  
WILL  
GROW!

Seven Furnaces, output 1890, 250,000 tons; Rolling Mill, 100 tons daily; Fire Brick Works, 25,000 daily; Many Lesser Industries

Offers Thirty Varieties of Hardwoods for Woodworking Industries.

11,000 City Lots For Sale.

The Bessemer Land & Improvement Co.

this new year, are prepared to deal liberally for the founding of Iron and Woodworking industries in this growing Mining and Manufacturing Center.

H. F. DeBARDELEBEN, Prest.

H. M. McNUTT, Secretary.

THE PLACE FOR FACTORIES.

THE ROANE IRON CO.

WILL BUILD UP A

✻ LARGE MANUFACTURING CITY ✻

AT

ROCKWOOD, TENN.

AND IS PREPARED TO OFFER SUBSTANTIAL INDUCEMENTS TO MANUFACTURERS.

○—AS TO RESPONSIBILITY OF THIS COMPANY, PARTIES ARE REFERRED TO EITHER DUNN OR BRADSTREET.—○

FOR PARTICULARS ADDRESS

ROANE IRON CO., Rockwood, Tenn



**FOR SALE.**

We have for sale one tract of land of  
**54,932 ACRES,**  
 IN BRAXTON CO., WEST VA.  
 Virgin, Forest, Oak, Hickory,  
 Walnut, &c., and  
 Coal in Great Quantities.

Also one tract of about  
**40,000 ACRES,**  
 — IN —  
 Bath, Augusta, Highland and Rockbridge  
 Counties.

Timber in great abundance. Estimated  
 3,000,000 ties and 30,000 cords tan bark,  
 also immense amount saw timber, on less  
 than half of the land. Within 4½ miles  
 of C. & O. Railroad.

**TITLES PERFECT.**

Abstracts of title and maps furnished.  
 Will take pleasure in giving information  
 and showing properties to persons contem-  
 plating purchasing. Apply to

**ALLEN, TOMPKINS & HATCHER,**  
 Real Estate Agents,  
**SALEM, VA.**

**West Salem Land Co.**

**SALEM, VA.**

**Authorized Capital, \$500,000**

OFFER STOCK IN

**Series C, New Castle Series.**

**SHARES \$10**

**PAR VALUE.**

**ARE SOLD TO SUBSCRIBERS AT \$5.**

Payable, One Dollar When Subscription is  
 Made, and One Dollar Each June 1, July  
 1, August 1 and September 1; at which  
 time Certificates of Stock will be issued,  
 declared Fully Paid up and Non-assessable.

The town of New Castle (or Craig City) is the  
 county seat of Craig county, Va., and lies midway  
 between the Chesapeake & Ohio Railroad at Eagle  
 Rock, and the Norfolk & Western at Salem, Va.  
 A branch of the Chesapeake & Ohio Railroad is  
 now being built to New Castle, which will be com-  
 pleted about Sept. 1, 1890. This road will open up  
 the richest mineral region of Virginia, and cause  
 great development of resources and consequent  
 enhancement of values.

The property belonging to this series will be  
 divided into about 600 business and residence lots,  
 and will be sold for the benefit of the stock-  
 holders. Applicants for stock in series C will  
 please remit \$1 per share to the West Salem Land  
 Company at Salem, Va.

GEORGE ALLEN, President.  
 C. C. TOMPKINS, Secretary.

**A Splendid Opportunity**

**I HAVE FOR SALE**

— THE —

**HUCKABEE  
Mineral Tract,**

Embracing 4,000 Acres in One Body.  
 Lying on Little Cahaba River, near  
 Brierfield, Bibb County, Ala.

Ore, marble and lime-  
 stone of best quality  
 and inexhaustible  
 quantity and the fin-  
 est timber are found  
 on these lands, and  
 there is manganese  
 in workable de-  
 posits. Coal is abun-  
 dant. railroad facili-  
 ties ample, and the  
 proximity to rich  
 cotton lands justi-  
 fies a cotton factory,  
 thus affording every-  
 thing necessary to  
 establish a success-  
 ful industrial town.

Mr. Robert L. McCalley, a well-known  
 mineralogist, writes of these lands as fol-  
 lows: "There is no other place in Ala-  
 bama where iron ore, coal, marble, lime-  
 stone, timber and sand are in such prox-  
 imity and abundance. Besides every  
 material necessary for the manufacture of  
 iron, magnificent water power is furnished  
 by the Little Cahaba River. This will be  
 very valuable in sawing and quarrying the  
 stone, and a fine marble business can be  
 established and successfully operated.  
 The fragments of the stone can be used as  
 flux at Bessemer, 23 miles north, Birming-  
 ham, 32 miles north, and Brierfield Fur-  
 nace, 3 miles east. Within one mile from  
 the Huckabee lands are veins three to  
 eight feet thick, producing the best fuel  
 and coking coal in Alabama."

Within a few miles there are six lines of  
 railroad, the nearest being the Brierfield  
 Standard Gauge Railroad, two miles distant,  
 and the L. & N. branch at Blocton, three  
 miles distant.

This tract is in a healthy locality.  
 I offer it for

**\$20 an Acre, Cash.**

For further information, address

**S. F. NUNNELEE, Agent,**  
**ANNISTON, ALA.**

**STANDARD LAND CO.**

**Catlettsburg, Ky., U. S. A.**

Dealers and Brokers in Mineral and Timber Lands.

**WE OFFER FOR SALE THE FOLLOWING DESIRABLE PROPERTIES,  
 RICH IN IRON ORES, CANNEL, BITUMINOUS AND NATURAL  
 SMELTING COALS, LIMESTONES, FIRE-CLAYS AND OTHER  
 MINERALS AND TIMBER.**

No. 40.—16,000 acres, Laurel county, Ky.,  
 from 3 to 4 miles from L. & N. R. R.

No. 41.—35,695 acres, Jackson county, Ky.,  
 on Rockcastle river, 3¼ miles above Livingstone,  
 a station on L. & N. and Kentucky Central Rail-  
 roads.

No. 43.—46,000 acres, Powell county, Ky.  
 K. U. R. R. through this tract for 11 miles.

Nos. 45 and 46.—Aggregating 1,302 acres,  
 Boyd county, Ky., ½ mile from C. & O., N. N. &  
 M. V. and O. & B. S. Railroads and Ohio river.

No. 47.—13,561 acres, Jackson and Lee  
 counties, Ky., 10 miles from Louisville Southern  
 R. R.

No. 50.—63,070 acres, Morgan county, Ky.  
 Three recent surveys of different railroads have  
 been made through this land.

**1,593 Acres Canal Coal Rights** in  
 Johnson county, Ky. Lands border on Big Sandy  
 river, O. & B. S. R. R. runs within 200 yards of  
 some of it, and "Three Cs R. R." will pass  
 through most of it.

No. 60.—5,000 acres, Logan county, W. Va.,  
 on Tug Fork Big Sandy river. N. & W. R. R.  
 now being constructed through this tract.

No. 61.—6,000 acres, Clay county, W. Va.

No. 62.—5,434 acres, Braxton county, W. Va.

Nos. 78 and 79.—Aggregating 19,750 acres,  
 Botetourt county, Va., on opposite side Craig's  
 creek, and bordering on same from New Castle,  
 and the Craig's Creek Mineral R. R., now being  
 constructed.

No. 80.—10,350 acres, Botetourt county, Va.,  
 adjoining tract 78.

No. 100.—45,444 acres, Pentress and Scott  
 counties, Tenn., about 5 miles from Cincinnati  
 Southern R. R.

No. 101.—30,000 acres, Cumberland county,  
 Tenn., between towns of Rockwood and Cross-  
 ville, Crab Orchard mountain, 5 to 10 miles from  
 C. S. R. R.

No. 125.—100,000 acres PINE land, in Holmes,  
 Washington and Calhoun counties, Florida.  
 Two railroad surveys and Coctawhatchee river  
 runs through tract.

Also other properties, including  
 Coal Mines in operation, Mineral  
 Paint Lands, Flour Mills, etc.

*Write for plats, topographical charts, civil and mining  
 experts report and full printed descriptions of property.*

**REAL ESTATE**

— FOR —

**Investment or Speculation.**

One of the Most Solid and Substantial of all the Southern Towns is

**BRISTOL, TENN.**

It is in the center of the richest mineral, timber and agricultural  
 sections of the South—East Tennessee and Southwest Virginia.

It is becoming an important railroad center.

It has now a population of 10,000, which is increasing every day.

It has in the HOTEL FAIRMOUNT one of the handsomest and most  
 thoroughly equipped hotels in the South.

It has in operation car shops, planing mills, foundries, woolen  
 factory, cotton factory, carriage factory, veneer factory, canning factory,  
 planing mills, brick-yards, &c. An iron furnace to cost \$300,000 has  
 been contracted for.

The climate of Bristol makes it a natural sanitarium the year  
 round.

There is no better place in the South for profitable real estate  
 operations.

Some of the best business, residence and suburban property in the  
 town is controlled by

**W. A. R. ROBERTSON,**  
**Real Estate Agent.**

Write to him for details. He is giving particular attention now  
 to two or three special things that will pay big profits on short turn.

### Myers' Imperial Wind-Mill Force Pump.

The accompanying illustrations represent the new Imperial wind-mill regulator force pump, with vertical three-way Wheeler

wheel be thrown out of wind by hand when the tanks were full to avoid being flooded, waste of water and unnecessary wear and tear of the wheel and machinery. To overcome this, Myers Bros. have placed on the market their new automatic regulator pump,

of the pump, thus pulling the wheel out of wind and holding it in that position until the water is lowered in the tank, when it immediately allows the wheel to go back into operation until the tank is again filled, when it is thrown out of gear, as before stated, and held in that position.

One wheel can be pumping water into a number of different tanks, and it is only necessary that each one be provided with a float. When the water is lowered in any one of the tanks it allows the wheel to go back into gear and fill it up. It will be apparent by this arrangement that having a good wind wheel attached to one of the regulator pumps is as economical and satisfactory a device for pumping water as could be designed. It is purely automatic, controls itself in every way and does not require the attention of the owner except when it is necessary that it be oiled. It further saves the wear and tear of the

so as to admit of the withdrawal of the plunger and valves when used on 2 and 3/4 inch tubular wells. It is furnished with flange union at the bottom. Further information, catalogues, etc., may be obtained by addressing the manufacturers.

### The Rogers Drive Screw.

The accompanying Fig. 1 illustrates a drive screw which the American Screw Co., of Providence, R. I., have just put on the market. This screw is designed for driving into wood, in view of the common practice of driving ordinary screws part way with a hammer. The Rogers is so constructed that it will turn all the way into the wood under blows from the hammer the same as the ordinary screw does when inserted from beginning to end with a screw-driver. The point of the drive screw is made with a view to such driving, and the form of the thread is best adapted to displace the wood without disintegrating the fibre. The screw, in fact, makes its own nut. The head of the screw is made with an improved nick or slot to meet the demand for a wider slot to admit a heavier screw-driver than can be used with the common cut screws, while it is strengthened at the ends of the slot to avoid the common fault of splitting the head. This construction permits the slot to be made much wider than in ordinary screws and permits also the use of a heavier screw-driver.

Cuts 2 and 3 represent pieces of wood into which a Rogers screw has been driven with a hammer, and into which, also, an old-time screw of similar size has been forced in the regular way by starting the point with a hammer and then turning it in with a screw-driver. It is noticeable in the case of the Rogers that the wood hugs the screw at every point, down into the bottom of the grooves.

Many attempts have been made to produce drive screws, but these goods have usually cost more to manufacture than common screws. The American Screw Co., in putting this drive screw on the market, is confident that it will be found adapted to the purposes for which it is intended, and that it will to a considerable extent be found suitable to take the place of the common screws. Experiments which they have made show that the screw can be satisfactorily driven its whole length with a hammer and have a remarkable holding power very much greater than that possessed by the common screw as



FIG. 1.—IMPERIAL ANTI-FREEZING WIND-MILL FORCE PUMP.

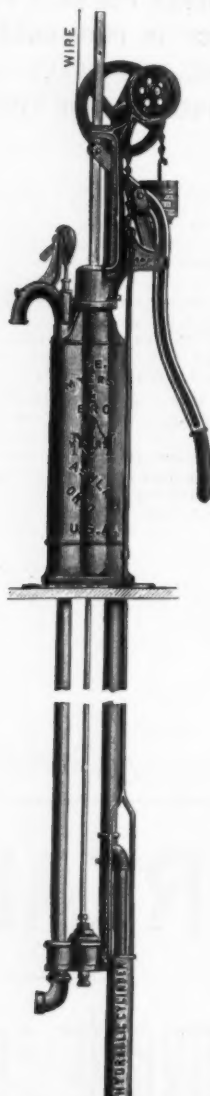


FIG. 2.—IMPERIAL WIND-MILL REGULATOR FORCE PUMP.



FIG. 3.—GLASS VALVE OF THE IMPERIAL WIND-MILL FORCE PUMP.

wheel in a large degree, owing to the fact that the wheel is never in operation except when it is pumping water for actual use. All the pumps are provided with glass valve cylinders.

The pump is of the most approved design throughout for wind-mill use. It is large, heavy and strong, designed especially for extremely hard work under heavy pressure; has an unusually large air chamber to cushion the stream and take off the heavy jar to which a wind-mill pump is subjected. The wind-mill head is of the most approved Wheeler pattern; has six, eight and ten-inch stroke. The actuating rod is high carbon-drawn polished galvanized steel, operating through a large brass packing box. The three-way cock is vertical. All the parts in the three-way cock are malleable iron, drawn steel and brass.



FIG. 1.—ROGERS' DRIVE SCREW.

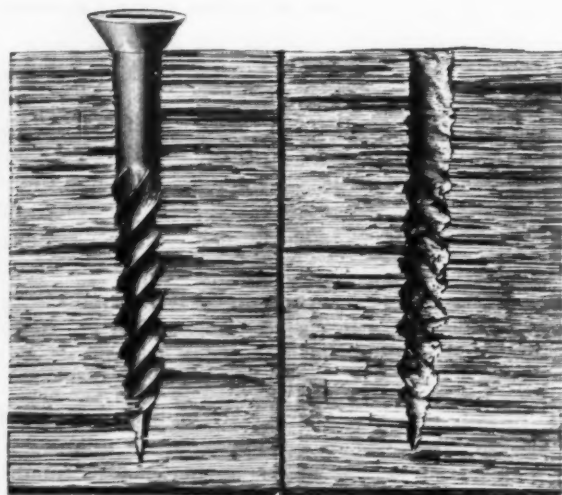


FIG. 2.—ROGERS' DRIVE SCREW AND THE SHAPE IN WHICH IT LEAVES THE WOOD.

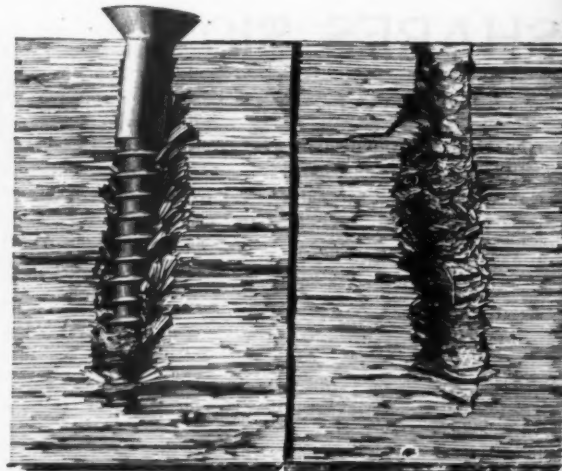


FIG. 3.—OLD KIND SCREW AND ITS EFFECT UPON THE WOOD FIBRE.

head, six, eight and ten-inch stroke, made by F. E. Myers & Bro., Ashland, Ohio.

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which controls the wheel, allowing it to operate and pump water until the tanks are filled, but the instant the tank is full, a float in the tank closes the water course, forcing the water over into the hydraulic cylinder, which operates a shaft at the head

By taking out the bottom nut at the three-way cock the entire working parts of the three-way can be removed should they become disarranged from any cause. The Hydraulic cylinder is of seamless drawn brass. The pump is further constructed

ordinarily driven. The claim is made for the screw that it possesses a degree of stiffness adapted for driving with a hammer; that it can be inserted with exceptional rapidity, and that it has increased holding surface.



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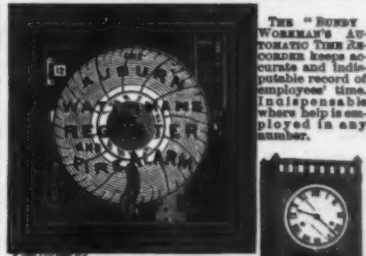
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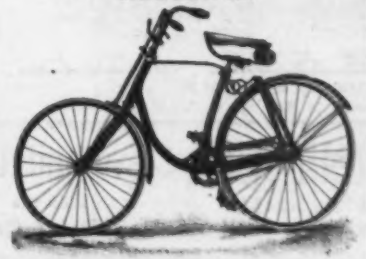
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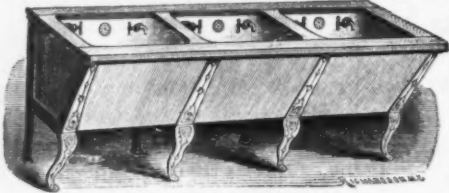
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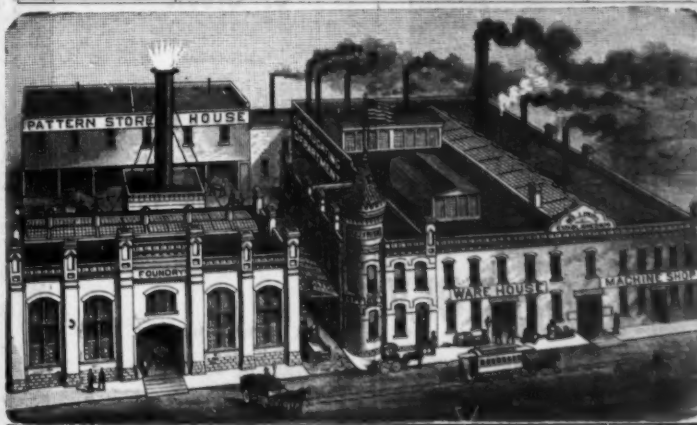
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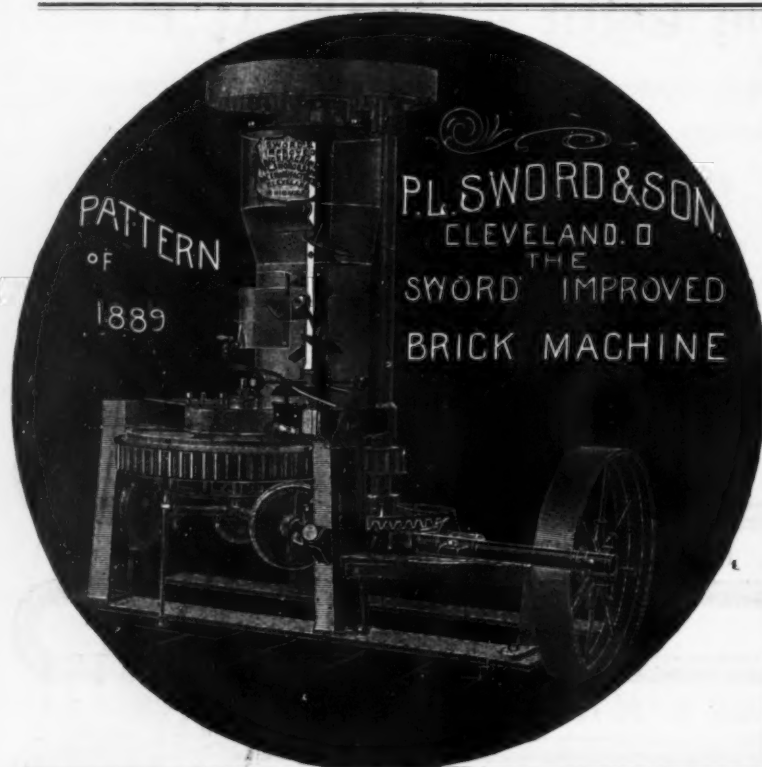
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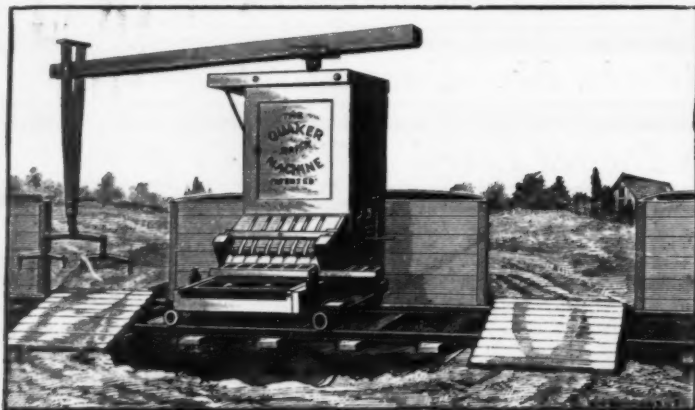
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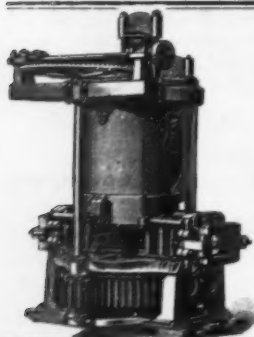
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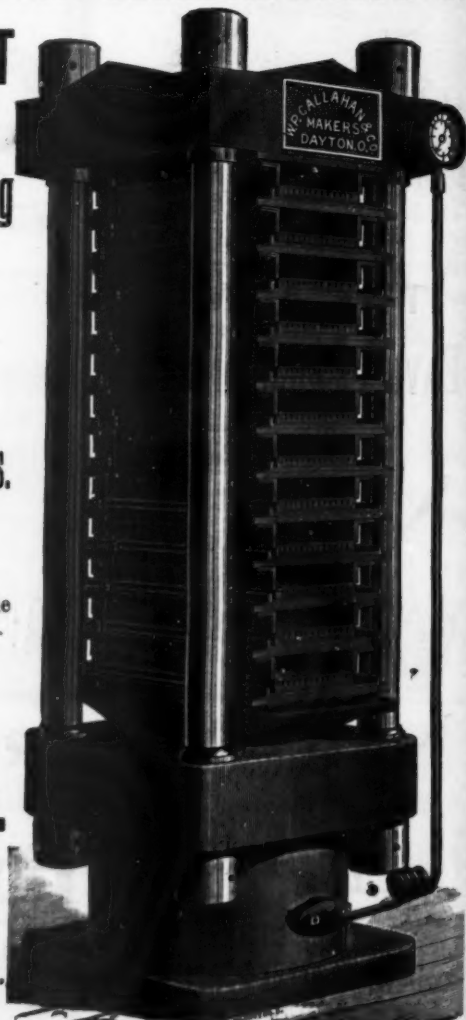
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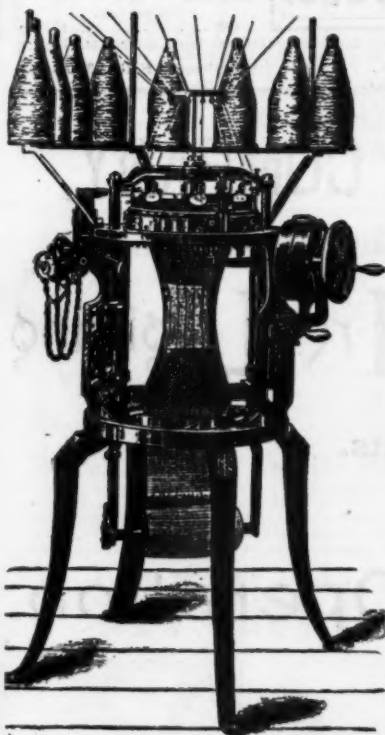
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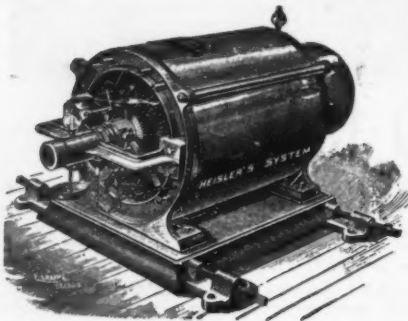
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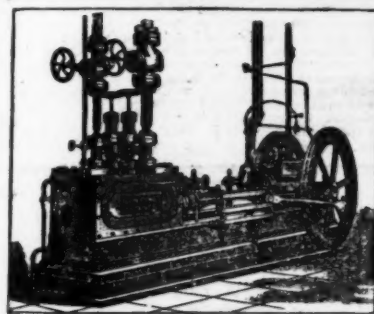
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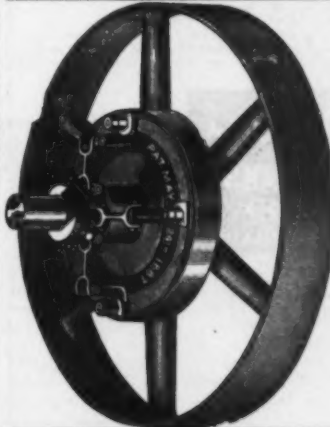
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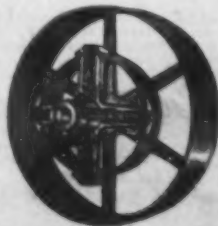
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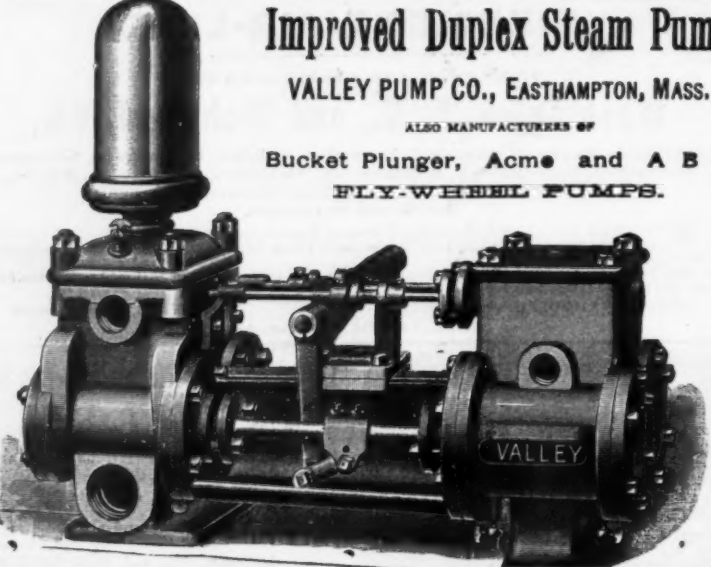


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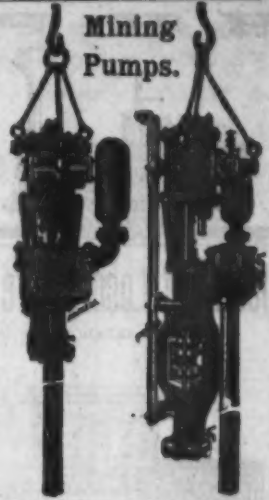
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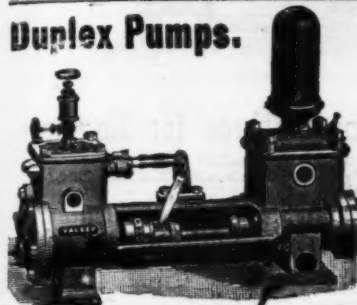
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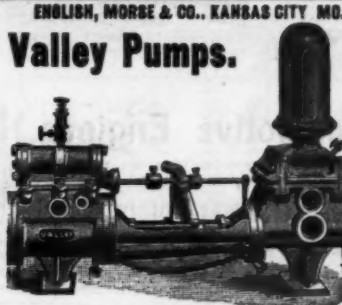
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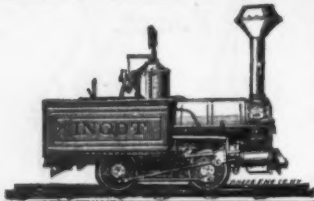
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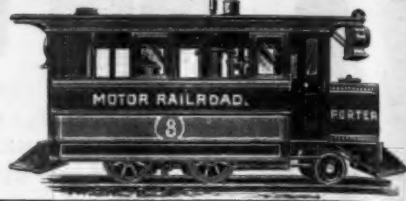
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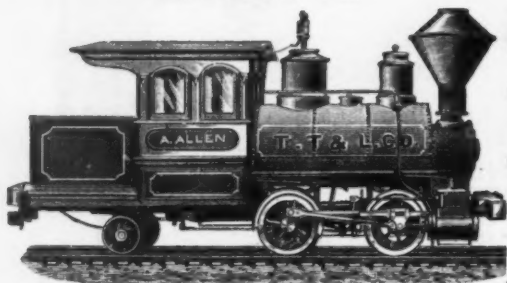
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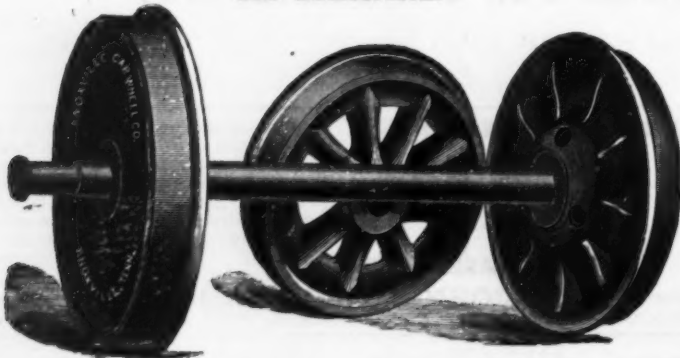
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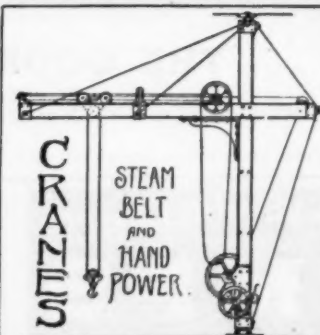
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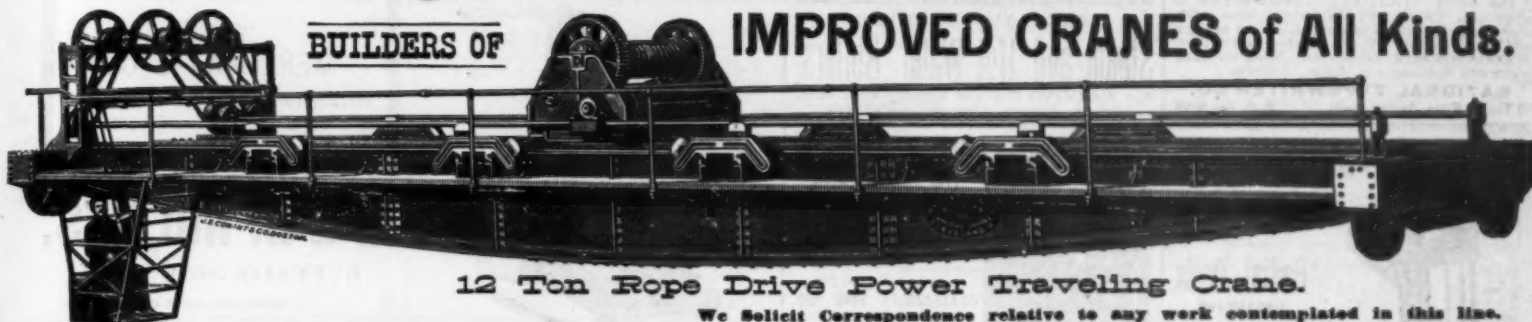
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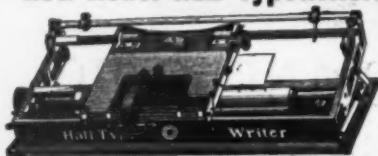


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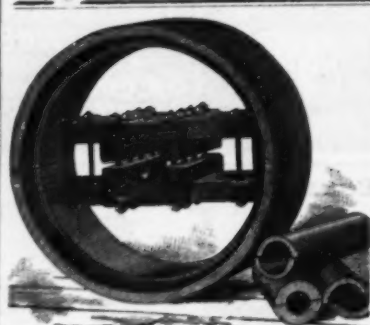
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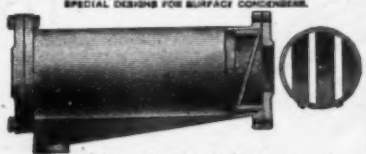
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For Separating and Removing Entrained  
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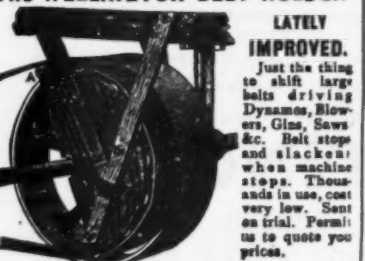
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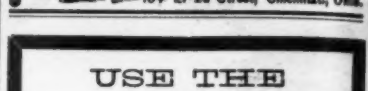
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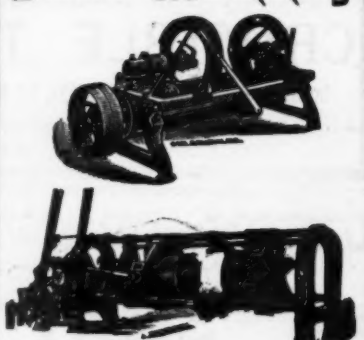
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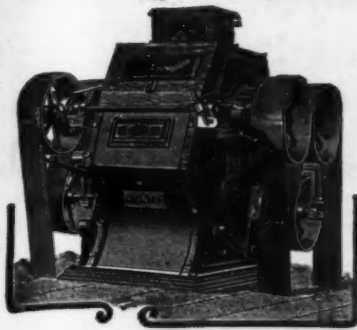
Wire Railing for Cemeteries, Lawns, Gardens, Of-  
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TILATOR with such uniform success in  
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**CHENEY & HEWLETT, 207 Broadway, New York.**



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## STURGIS ROLLER MILLS, BAUER & BUHRER, Proprietors.

STURGIS, MICH., July 12, 1890.

The Case Manufacturing Co., Columbus, Ohio:

GENTS—We started mill July 7th. The 12 pair 9x18 rolls you furnished us worked perfectly. They are so easy to adjust, so simple to handle, feed so regularly, grind so nicely and even, and work so smoothly on the whole, that we have no hesitancy in stating that we cannot see how they can have a superior, if equal. Aside from their perfect work, they are models of beauty and finish, and a decided ornament to any mill. We enclose clippings from papers. We are, with best wishes,

Very truly yours,

BAUER & BUHRER.

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## THE CASE MANUFACTURING CO., Columbus, Ohio.

### New Hand Planer and Jointer.

In no well-equipped factory is there one machine which is so essential as the hand planer, and anything new and original pertaining to it is always of timely and practical interest. We therefore take pleasure

to receive the plain knives, and the other two sides are slotted to receive beading bits, molding bits, etc., according to the work being done.

The patent bevel fence is a very simple one in construction, and one clamp operated by a screw will hold the fence to any

### The Stedman Disintegrator and Pulverizer.

The accompanying illustration is a disintegrator and pulverizer manufactured by the Stedman Foundry & Machine Works, Aurora, Ind., designed for almost any ma-

passing through has an increased clearance, and, when discharged from the last cages, the current of discharge is in the direction the cage revolves. The cages being set closer to one end of the mill than the other give a continued increased clearance between the caging and casing, thus rendering the liability to clog almost impossible. The reinforcing wrought iron rings at the base of the pins is one of the special protected claims greatly increasing the strength. The fly wheels are a great advantage, as they equalize the wear on the journals by acting as a counterbalance to the cages and at the same time give a steady motion to the mill. All parts are easy of access, and the principle is the same as the old English machine, known as the Denmead mill.

The mill consists of several oppositely revolving cages formed of round bars, reinforced with iron rings and secured to heavy cast circular disks. The bars of one set of cages project between the bars of the opposite cages. No grinding or crushing surface is presented. The material to be disintegrated is received into the inner cage, and, by the centrifugal force created by the rapidly revolving cages, the material is projected through the cages and against each other, and by which a system of attrition and free blows is merged into one from which no friction ensues.

The capacities of these mills depend on the kind and condition of material. For coal the capacity ranges from 50 to 400 tons per day, and under favorable circumstances

in illustrating a late machine for practical wood-workers in the hand planer line.

The many points of advantage and convenience which the builders have embodied in the machine commend it for plain, convex and concave glue joints, planing out of wind, cornering, chamfering, beading, grooving, gaining, rabbeting and a general run of work.

The column is cast in one piece and cored out, the inside making a very convenient tool box. The top is planed perfectly true, giving a solid and reliable foundation for the inclined plate to work on. The journal boxes for the cylinder are also a part of the main column, insuring the steady running of the head.

The front table is four feet long and the back table is three feet, and the tables are planed perfectly true. A rabbeting table is connected and supports the stock either in cutting across or with the grain of the wood, using the long, straight knives for this purpose.

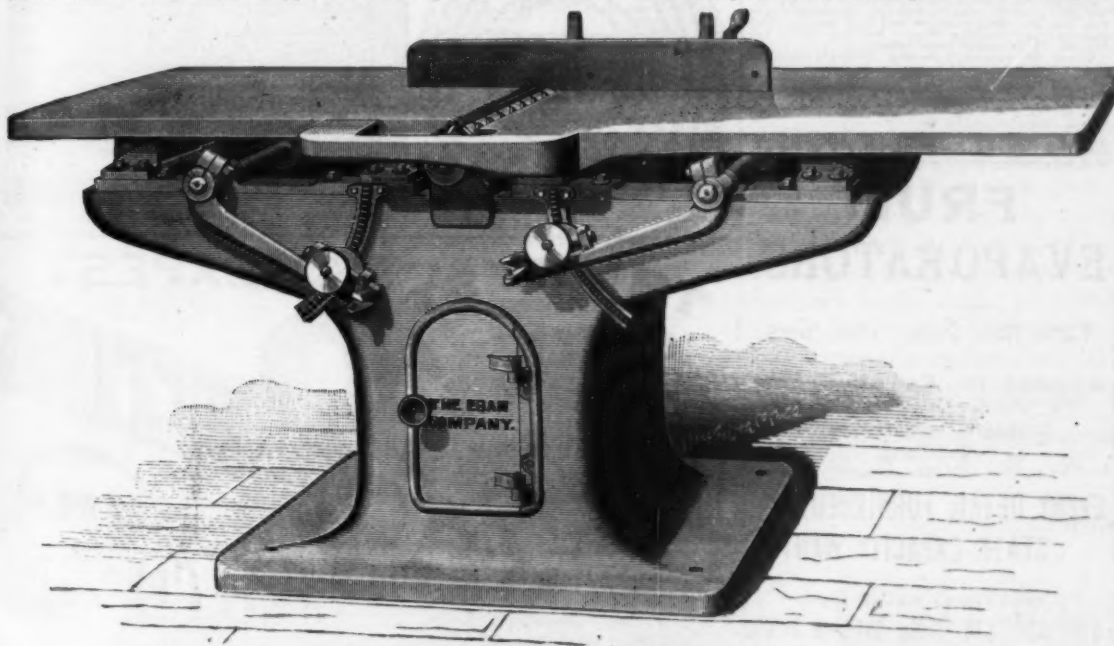
The new arrangement for raising or lowering either table independent of the other is very complete. The tables can be instantly raised and lowered to the full extreme, giving access to the knives instantly, or they can be adjusted to the smallest fractional part of an inch to suit the work. This is accomplished by means of levers placed convenient to the operator.

The cylinder is of solid, hammered steel. Two sides of the cylinder are made straight

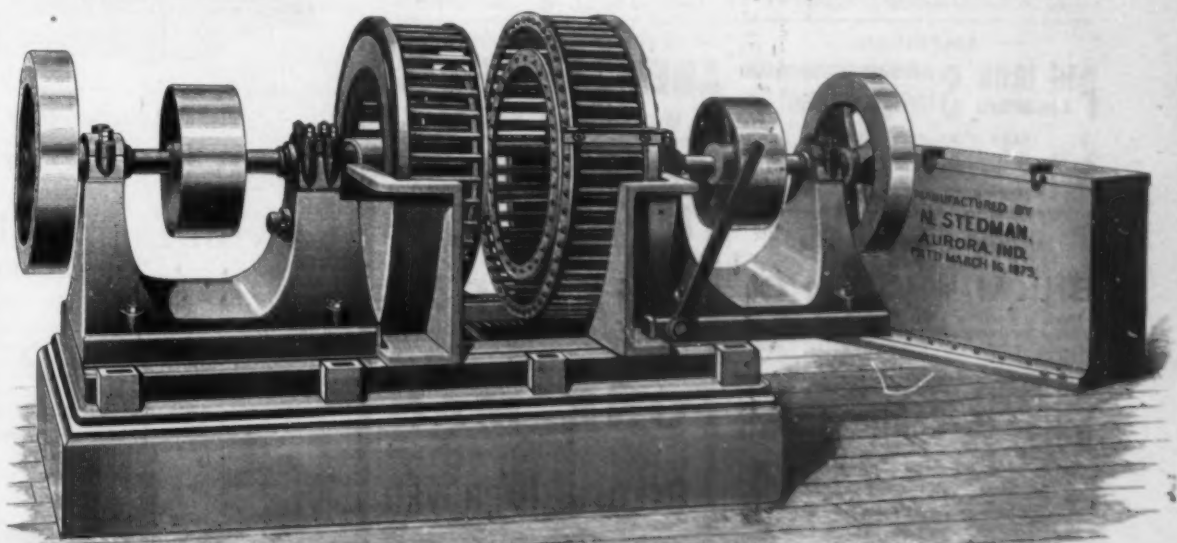
desired level. The face is planed true, and suitable provision is made for using the fence at any point across the table.

For further information address the builders, the Egan Co., Nos. 228 to 248 W. Front street, Cincinnati, Ohio.

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NEW NO. 2, THIRTY-INCH HAND PLANER AND JOINTER.



THE STEDMAN DISINTEGRATOR AND PULVERIZER.

terial that can be disintegrated, such as coal of all kinds, iron ores, fire clay, slag, etc. For brick, tile and pottery men and to terra cotta works this mill is specially valuable, as it reduces the clay to a fine, light and soft condition, with its full adhesive properties retained.

The construction is such that material

and with screen coal these capacities will be greatly increased. The cage pins are made of material suitable to the work to be pulverized, and parties ordering a machine should state the class of material to be disintegrated or pulverized. Circulars and farther information may be had of the manufacturers.

## The Markets.

OFFICE MANUFACTURERS' RECORD,  
BALTIMORE, July 30, 1890.

Just now more attention is being paid to statistics of pig iron production than to prices or sales. In fact the figures made public, relative to stocks, production, consumption, etc., have made quite a stir in trade circles. A better market is looked for very soon. Higher prices may not be permanent, say makers, but they at least expect a better demand at an early day. This is about the situation at this writing. Pig iron makers show by their slight restriction of production that they do not propose to pile up stocks. Quotations at tidewater for Pennsylvania irons are \$18 to \$18.50 for No. 1; \$16 to \$17 for No. 2, and \$15 to \$15.75 for gray forge; Bessemer \$19.50; muck bars \$29 at mill. The demand for all kinds of merchant bars, merchant steel, sheet, nails, shell flange and structural iron, is of moderate proportion in all Eastern and Western markets. Several large mills in Pennsylvania are still idle after the time fixed for starting up. The nail makers are piling up stocks slowly all over the West. There is a good feeling for the future. The export trade is heavy. Receipts at tidewater points from the interior are good. Money is abundant, and everybody has faith in steady prices and a heavy fall trade.

The plate and structural iron manufacturers look forward to heavy August orders. Steel rails are dull just at present, and a few large buyers are endeavoring to crowd prices down towards the \$30 limit in one or two Pennsylvania mills. Prices are maintained with ease, and the entire outlook is satisfactory to iron-making interests, at least so far as distribution is concerned. As usual, old rails are in request, in excess of supply.

### HARDWARE.

There have been no changes in values since last report, and the volume of trade continues in the same satisfactory condition. Most leading lines of staples are active, and except locally, where crop prospects are very light, the general fall outlook is encouraging. The jobbers, as a rule, are busy and manufacturers working full. A heavy business may be confidently expected for several months to come.

### AMERICAN

**PIG IRON Storage Warrant Co.**

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Correspondence of Furnaces Invited.

### NASHVILLE RAPID TANNING

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**Silica Graphite Paint.**

DURABLE AND BEAUTIFUL.

Unaffected by heat or cold, dampness, salt air, rust, or even acids. For smoke stacks, boiler fronts, tin roofs, or metal work, this Paint is far superior to anything made. For details send for circulars. Joseph Dixon Crucible Co., Jersey City, N. J.

**PICKANDS, MATHER & CO.**

Pig Iron, Iron Ore and Coal.

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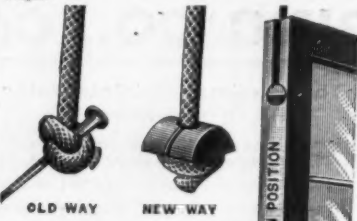
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For one dollar, currency or stamps, we will send to any part of the United States, express charges paid, our perfect Grease Cup. It is light, strong, and forces all the grease out of the cup without being touched. We need sufficient grease for trial. The cup is well finished, and is an ornament anywhere. One cup of grease will do the work of six cups of oil. For loose pulleys, crank pins, etc., it has no equal. Casecraft Mfg. Co., Cleveland, Ohio.

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Sulphuric Acid Chambers constructed on the latest improved plan. Strict attention given to the Lead Work of Concentrating Apparatus.  
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Particulars Free. Six Sizes.

Adapted for Factory Plants,  
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Sowed Cotton Duck Belting.

Especially adapted for Main Drivers, Saw Mills, Cotton Gins, Cotton Presses, and for all places where belts are subjected to moisture or atmospheric changes, the "GANDY" stands paramount.

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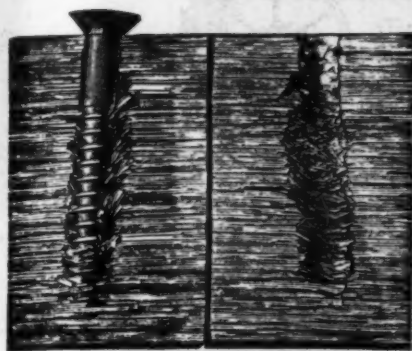
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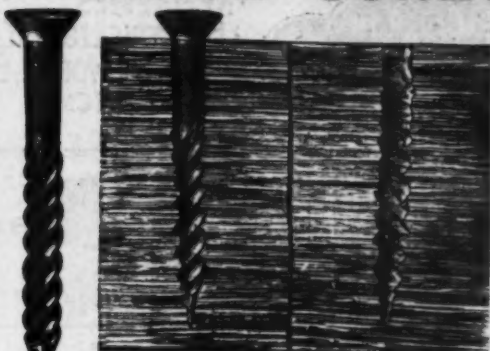
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The "Rogers' Drive Screw" driven with a hammer its entire length. It revolves as it goes in and does not break the fibres of the wood, but makes its own nut of the cavity it forms.

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The foregoing illustrations speak for themselves, but we call attention to a few advantages of the "ROGERS' DRIVE SCREWS."

1. Stiffness, adapted for driving with a hammer.
2. Rapidity of insertion.
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4. Ability to be driven with hammer and withdrawn with screw driver numerous times from same hole.
5. Superior head, which will withstand blows of a hammer and not impair the slot.
6. Improved slot, admitting the use of a heavier screw driver.
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As Applied to Factory Buildings.

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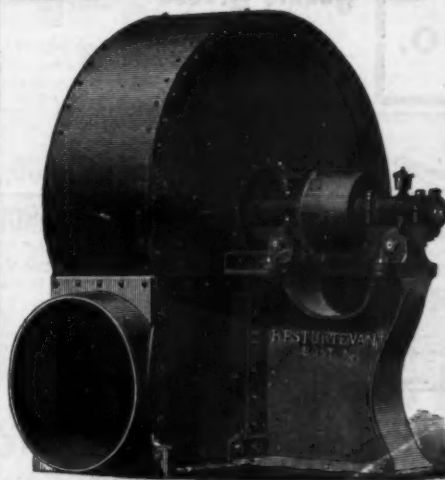
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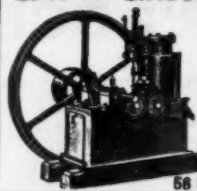
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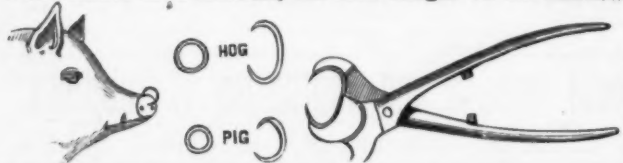


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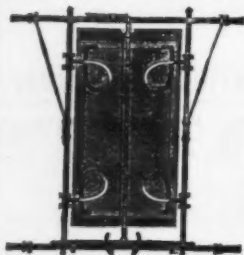


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Cisterns, Tanks and Cylinders: no riveting or  
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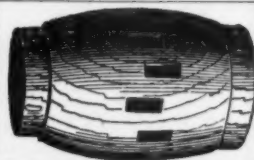
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Cannot collapse or spread,  
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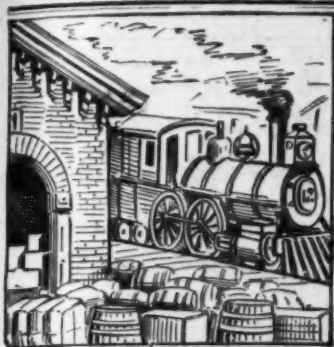
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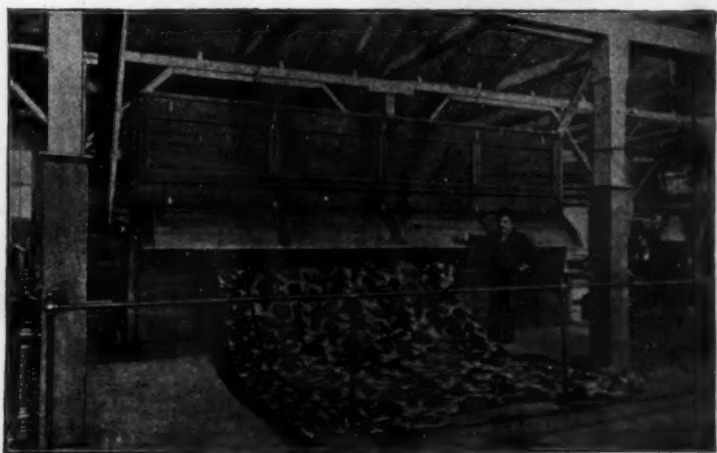
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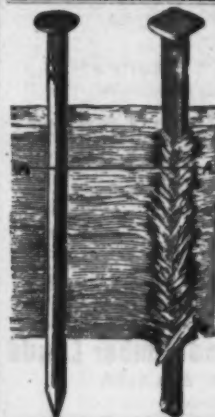
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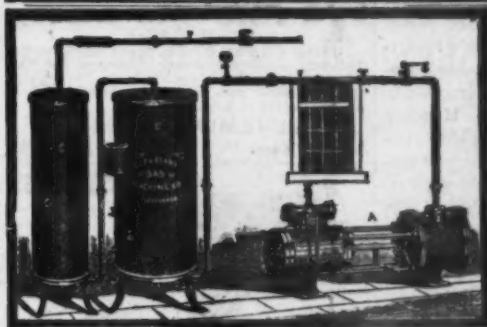
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MADE BY **THE CANTON STEEL ROOFING CO., CANTON, O.**

PAT'D 1889



## Eastern Lumber Markets.

[Special Cor. MANUFACTURERS' RECORD.]

NEW YORK, July 29, 1890.

The urgency on the part of buyers of hardwoods is a feature of this market in this exceptionally dull season. The receipts of lumber are large for this season, as railroad figures show. Receipts by water have fallen off for a few days. The general situation is unchanged and prices are strong. The stocks of yellow pine are not at all excessive. This statement is made in response to several inquiries lately received from Southern manufacturers and shippers, who are anxious to keep posted with reference to the actual condition of this market and the markets of the New England States. Another inquiry frequently made is to what extent is the demand for Southern lumber increasing in the New England and Middle States. No definite reply is possible. Our wholesalers say in a general way that the demand is on the increase and that it is easier to command good prices this year than last. They have been handling very large quantities of yellow pine and are now arranging for heavy fall shipments. Tennessee poplar is also strong, and as we have only moderate stocks prices are easily obtained, provided the holder lets the buyer come to him. Spruce is short in stock. Hemlock is not plenty. Michigan pine is abundant. Quartered oak is scarce and likely to continue scarce. Ash is coming in every day. Cherry is in good demand—that is, the handlers of cherry have standing orders for all of certain grades of cherry that they can deliver. Walnut has been quite dull for some time. The special woods are moving along quietly. Building permits have been checked up a little of late, but there is an abundance of work to come. Car-builders' demands have slackened. Cabinet-makers are always on the lookout for bargains. These are the main features this week.

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The important features of our recent improvements, for which patents have been allowed in this country and in Europe, are described in our new circular, which, with samples, will be sent free by mail.

Our Asbestos Roofing is now in use upon Factories, Foundries, Cotton Gins, Railroad Bridges, Cars, Steamboats, etc., in all parts of the world.

It is supplied ready for use, in rolls of 200 square feet, and weighs with Asbestos Roof Coating, ready for shipment, about 85 pounds to 100 square feet.

It is adapted for steep or flat roofs in all climates, and can be readily applied by unskilled workmen.

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FOR  
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For Doors.	Length of Flanges.	Single Acting pr. pair.	Double Acting pr. pair.	St. pr. pair.	Double Acting pr. pair.
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7x2 1 1/2 to 1 3/4	5	1 10	2 20	3 00	5 75
7x2 1 3/4 to 2	6	1 40	2 80	3 75	6 75
8x2 1 1/4 to 1 3/4	7	1 75	3 50	4 50	7 75
8x2 1 3/4 to 2	8	2 50	5 00	5 50	11 50
9x2 1 1/2 to 2 1/4	10	3 50	7 00	7 50	14 25
10x2 2 to 2 1/2	12	4 50	9 00	10 00	18 00

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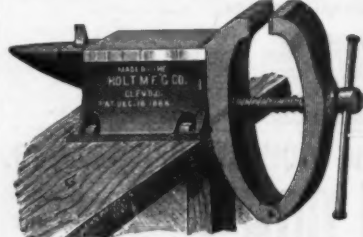
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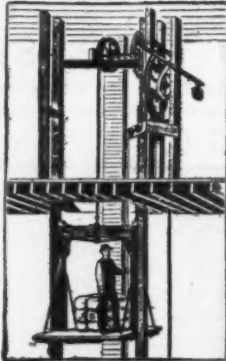
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## A New Ammonia Pump

The illustrations show a side and end view of a new ammonia pump manufactured by Dean Brothers Steam Pump

To those looking for investments in Southern mineral and timber lands, the Standard Land Co., of Catlettsburg, Ky. offers some opportunities that are worthy of careful investigation. It controls proper-

Logan, Clay and Braxton counties, West Virginia; Botetourt, Va., and Fentress, Scott and Cumberland counties, Tennessee. These lands are rich in iron ore, cannel, bituminous and natural smelting coals, limestone, fire-clays and other minerals, and are well timbered. Also a large tract of pine land in Holmes, Calhoun and Washington counties, Florida, through which the Coctawhatchee river passes. All of the mineral lands are easily accessible to railroads; in several instances roads now run through the property, while in others surveys have been made or contracts let for building through them. A more detailed description of these tracts of land is given in our advertising columns. Plats, topographical charts, civil and mining experts' reports and full printed description can be had upon application at the office of the company.

## Heavy-Duty Rice Automatic Tandem Compound Condensing Engine.

Not long ago a description was published of the Rice automatic tandem compound condensing engine as built for powers of 100 horse and under. We now announce an engine of the same type, modified to meet the demands of higher duties—for

and strength which it gives. The cross-head has a suitable take-up for wear, and is so arranged that it cannot be tightened to the point of cutting. In this engine the low-pressure piston head can be removed without disconnecting the high-pressure, and steam may be used in either cylinder without employing the other.

Two engines have already been built from the new patterns—one for the South Bend Electric Light & Power Co., of South Bend, Ind., and the other for the Dakota elevator. Neither of these engines has yet received the full load for which it is guaranteed, but their work so far has been of such a satisfactory character as to promise unusual efficiency, combined with that high economy which it is the aim of every good engine builder to attain, and which especially distinguishes the Rice engines.

The John T. Noye Manufacturing Co., Buffalo, N. Y., and 89 Liberty street, New York city, are the only builders of Rice engines, and all requests for information should be addressed to them, or to Fairbanks, Morse & Co., their western agents, at Chicago, St. Louis, Kansas City, Omaha, Denver and St. Paul.

THE Reed Island Boom, Land & Lumber Co. in Virginia, is intending to erect a saw mill, and desires to secure a man acquainted with the business to unite with

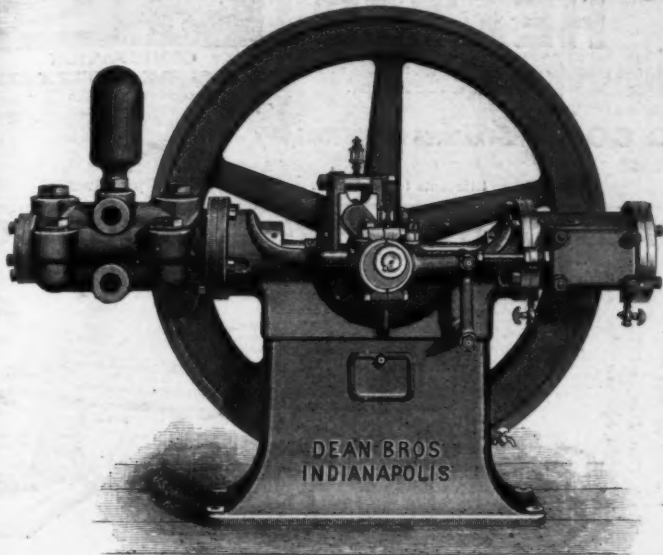
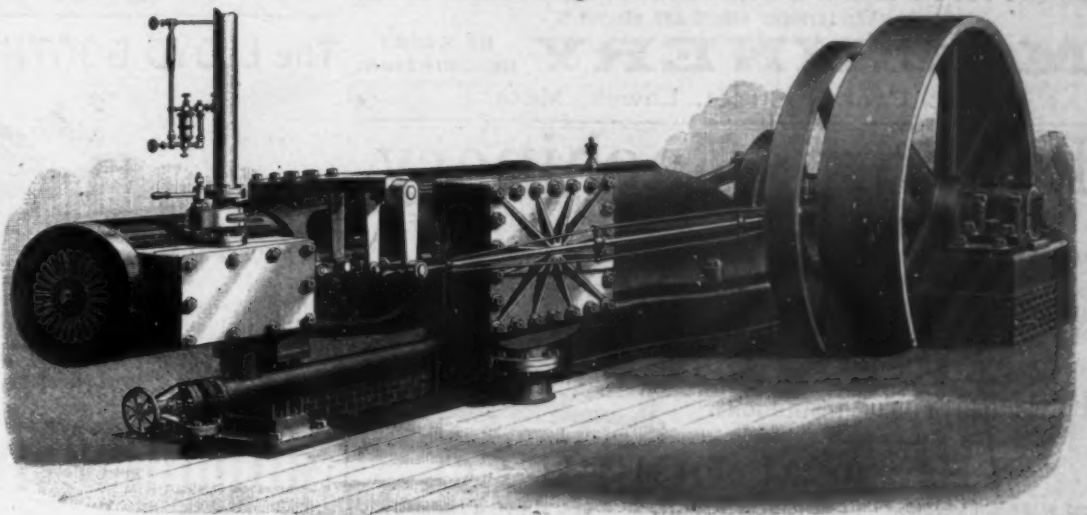


FIG. 1.—NEW AMMONIA PUMP.

Works, Indianapolis, Ind. The pumps are designed to work against a pressure of 100 to 250 pounds per square inch in connection with absorption ice machines. The valves and piston-rods are made of the best tool steel. The stuffing-box of ammonia pump is double, with a "lantern iron," the center of which is connected with the suction of the pump in such a way as to carry the ammonia back to the pump that otherwise might leak out of the stuffing-box. The fly-wheel is very heavy, so that the pump can be run at a very slow speed. The yoke for the crank has a bearing in the bottom of the frame. All oil drippings are collected in the frame, and can be drawn off through the faucet. The parts of the pump are accessible. The workmanship is first-class, and the parts are strong. The ammonia cylinder is a cast-iron piece, so there is but little danger of leakage.

Dean Brothers Steam Pump Works, Indianapolis, Ind., are also making a new duplex boiler feeder. These pumps are



THE RICE AUTOMATIC TANDEM COMPOUND CONDENSING ENGINE FOR HEAVY LOADS—REAR VIEW.

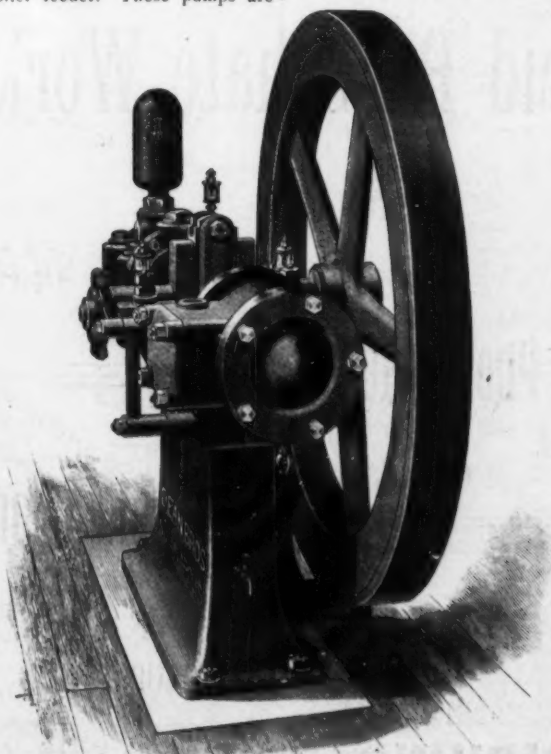


FIG. 2.—NEW AMMONIA PUMP.

made in small sizes. The valves, valve seats, packing-rings and stuffing-boxes are made of brass. All parts are heavy, being designed for pumping against heavy pressure.

ties in the following counties, which are within the richest mineral districts of the several States: Laurel, Jackson, Powell, Boyd, Lee and Morgan counties, Kentucky;

electric tramway and power plants, rolling mills and the like. The new engine is illustrated herewith.

The view is of the back, and shows not only the valve motion and the governor, but also the cylinders and frame. Attention is called to the low and unusually heavy frame; it is about 25 per cent. heavier than that of the standard engine. This increase in mass, however, has not been allowed to detract from the looks of the engine.

\* With two exceptions—frame and governor—this heavy-duty Rice engine is practically identical in construction with the standard tandem compound engine. The crank disk being too small for the governing mechanism required on so large an engine, it has been found best to place the governor in the fly-wheel, or, in some cases, in a wheel of its own. The valve is then driven from a separate eccentric on the shaft, both valves being driven automatically by the governor. The valve itself is of the well-known gridiron pattern, with four ports, and is so nicely balanced that it can easily be operated by hand, even when under full steam pressure.

The main bearing is provided with quarter boxes, in order that the wear may be taken up in any or all directions. These boxes are lined with Babbitt metal, and then bored out to a perfect fit.

The connecting rod is of forged steel, with a loop to contain the brasses for the crank pin. This construction is more costly than that in the standard engine, but is warranted by the additional safety

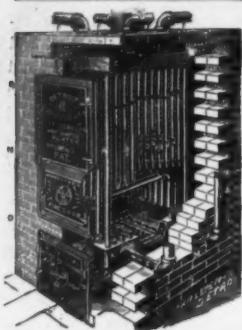
them, furnish some capital and take charge of the mill. Ro. L. Gardner, of Palaski City, Va., is treasurer, and will answer all communications.

**SEALED PROPOSALS** will be received at the office of the Supervising Architect, Treasury Department, Washington, D. C., until 3 o'clock P. M., on the 15th day of August, 1890, for supplying and delivering at freight depot at place of destination, the Postoffice lock boxes, lock drawers, locks, pulls, plates, etc., for U. S. Public Buildings, as may be ordered during the fiscal year ending June 30th, 1891. Copies of the specification and any additional information may be had on application at this office. Each bid must be accompanied by a certified check for \$100. The Department reserves the right to reject all bids received after the time fixed for opening the same; also bids which do not comply strictly with all the requirements of this invitation. Proposals must be sealed and endorsed "Proposal for Lock Boxes, Lock Drawers, Locks, Pulls, Plates, etc., for U. S. Postoffices," and addressed to JAS. H. WINDRIM, Supervising Architect. July 26, 1890.

**HOSE** Christle & LeCount, 51 Canal St. N.Y.  
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**FIRE HOSE.**  
All Appliances for Fire Protection for Cities or Mills. General Mill Supplies. Send for illustrated circulars.

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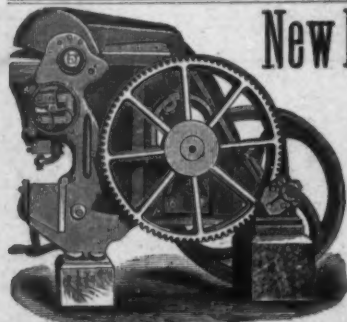
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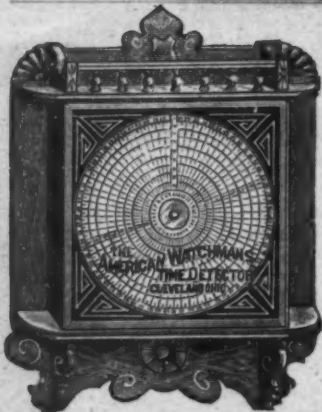
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